IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA
IN AND FOR THE COUNTY OF SACRAMENTO

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HON. STEVEN H. RODDA, JUDGE, DEPARTMENT ONE

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LAURENCE LUCIER and LAURIE LUCIER,

Plaintiffs,

-vs-

No. 02AS01909

PHILIP MORRIS INCORPORATED, and R.J. REYNOLDS TOBACCO COMPANY,

Defendants.

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REPORTERS' DAILY TRANSCRIPT OF PROCEEDINGS AT JURY TRIAL

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FRIDAY, NOVEMBER 8, 2002

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FRIDAY, NOVEMBER 8, 2002
MORNING SESSION

The matter of LAURENCE LUCIER and LAURIE LUCIER, Plaintiffs, versus PHILIP MORRIS INCORPORATED and R.J. REYNOLDS TOBACCO COMPANY, Defendants, Case No. 02AS01909, came on regularly this day before the Honorable Steven H. Rodda, Judge of the Superior Court of the State of California, for the County of Sacramento, Department One.

The Plaintiffs, LAURENCE LUCIER and LAURIE LUCIER, were represented by: GARY M. PAUL, Attorney at Law; ROBERT M. BROWN, Attorney at Law; and MARY ALEXANDER, Attorney at Law (not present).

The Defendant, PHILIP MORRIS INCORPORATED, was represented by: GERALD V. BARRON, Attorney at Law; LAURA C. FEY, Attorney at Law; STEPHANIE A. SCHRANDT, Attorney at Law (not present); DEBORAH A. SMITH, Attorney at Law (not present); and ANNIE Y.S. CHUANG, Attorney at Law (not present).

The Defendant, R.J. REYNOLDS TOBACCO COMPANY, was represented by: THEODORE M. GROSSMAN, Attorney at Law; STEVEN N. GEISE, Attorney at Law; HAROLD K. GORDON, Attorney at Law; DANIEL J. McLOON, Attorney at Law; and ELIZABETH P. KESSLER, Attorney at Law.

(The following proceedings were then had in open court outside the presence of the jury.)

THE COURT: Good morning.

COUNSEL IN UNISON: Good morning, your Honor.

MR. GROSSMAN: I had only one thing I wanted to take up before the jury comes back.

THE COURT: Okay.

MR. GROSSMAN: Because a lot of the jurors have not been able to see the charts because of where we put it, we had small copies made to be handed out, if the Court approves, and given back after I have finished using that chart.

MR. PAUL: I object.

This is an opening statement. They've got a board here. They've got television screens in which they've shown this. Putting things in jurors' hands to allow them to follow along during an opening statement I think is inappropriate. It gives

it much more weight than someone standing up saying, Here's what I want to show.

I would have loved to have handed out my entire packet yesterday and gone through it, but I think it's inappropriate in an opening statement. It gives added weight to something that is supposed to be what the attorneys are saying they think the evidence will prove.

I don't know that any jurors have stated they weren't able to see this board. I can see it from here, and I don't have the best eyesight in the world.

So I just think it's inappropriate. I don't think it is necessary, and I think it's prejudicial because it adds extra weight to what he's handing out.

MR. GROSSMAN: My understanding is that some jurors have said they couldn't see it, they reported that to Aaron I believe. We would hand it only to those people who said they can't see the board. It's only a demonstrative aid. Plaintiffs have had it for two days. We would hand one up to

the Court as well. It's a simple time line.

Your Honor, if I could just hand you a copy of --

THE COURT: I think -- is this it?

MR. PAUL: No. That's mine, your Honor. Maybe I'm incorrect. No, that's the one.

MR. GROSSMAN: Yeah. It's a time line of events.

THE COURT: Have you had something that you wanted to display to the jury in a similar way?

MR. PAUL: Sure. I would have loved to have handed my time lines out to the jury. I didn't do it because I thought -- I've always been under the belief that you don't hand things to jurors during opening statements because of the extra weight that it gives to it that it's more important and they should follow along with it. It's supposed to be words of the attorney.

THE COURT: All right. I'm going to sustain the objection.

MR. GROSSMAN: Excuse me?

THE COURT: I'm going to sustain the objection. Plaintiff didn't have this opportunity. I'm trying to strike a balance here. I think in fairness you shouldn't be able to. You can read it to the jurors if they can't see. But I do think that there is --- it suggests some significance if they have it in their hands that might not be appropriate at this stage of the proceedings.

Anything else?

MR. BARRON: Your Honor, briefly.

THE COURT: Yes.

MR. BARRON: I just would like to alert the Court. I gave you an estimate of my opening. It's very difficult going last. I went through and I took out a lot of things and I realized I had to add.

THE COURT: Right.

MR. BARRON: Because I don't want to put the jurors to sleep, I'll do my best to keep it to something like that. But to be very candid, I don't have any real idea how long this thing is going to last.

THE COURT: That's fine.

MR. BARRON: I just want to alert you.

THE COURT: Okay. I do want to take breaks at fairly regular intervals here. So maybe around 10:00 o'clock.

MR. GROSSMAN: That's fine, your Honor.
THE COURT: Okay.
MR. GROSSMAN: Whenever -- do you want me -- I'll look at the clock -- to tell you a reasonable breaking point, or do you just want to --
THE COURT: That would be fine. And if you're not aware of that because you're focusing on your argument, then I'll try to find a logical breaking point for you.
MR. GROSSMAN: All right. That's fine.
THE COURT: Let's bring the jury in.
(Pause.)
THE COURT ATTENDANT: Please be seated and come to order. Court is now in session.
THE COURT: Good morning.
Okay. Mr. Grossman.

MR. GROSSMAN: Thank you very much, your Honor.
Could I have slide eight, please.
Oh, thank you.
When we left yesterday I was discussing the second item on here, funding independent research. It was talking about funding by the Tobacco Industry Research Committee and the Council for Tobacco Research, tens of millions of dollars over the years to a variety of independent scientists. That was not the only independent research that was funded by Reynolds and Philip Morris.
In 1963 --
MR. PAUL: Your Honor, may we approach for just one moment, please?
THE COURT: All right.
Please don't overhear our conversation.
(The following bench conference was then had.)
MR. PAUL: I'm a little surprised to be hearing people talking about tens of millions of dollars spent on research when a motion was made to preclude me from bringing up the fact of advertising and research because it went to the value of companies. Now -- now I'm hearing tens of millions of dollars of research. I would have loved to have read in that memo yesterday, and now I'm hearing it spit back at me. I think it's inappropriate.
THE COURT: Well, that certainly -- I can take that into account when we rule on the admissibility of the exhibits.
MR. PAUL: I think he certainly opened the door, your Honor. Thank you.

THE COURT: In any event, I'll address that issue when it comes up.
You can proceed.
(Bench conference concluded.)
MR. GROSSMAN: Thank you, your Honor.
Getting back to where I was. In 1963, Reynolds and Philip Morris began funding with the American Medical Association, additional research conducted by outside scientists into various matters relating to smoking and health. Again, neither Reynolds nor Philip Morris decided who the scientists were that would get the money, nor did they decide what the projects would be. This was simply funding for the research.
In 1964, Reynolds funded inhalation studies at the Bowman Gray Medical School in North Carolina where animals were exposed to whole smoke to see if it could induce lung cancer.

And over the years there have been various studies funded by these companies by outside scientists and published -- all published in the medical literature.

Reynolds also did work, number three, studying intensively smoke chemistry. That was work they did themselves. That was an area where they had expertise and where it went to the way cigarettes were designed.

Now, in 1950 -- and I'm sorry that those of you back there I'm sure are having trouble seeing this, but in 1950 there were 90 constituents, 90 chemicals in smoke that were known. Reynolds started to work on figuring out the chemicals that are in smoke around the early 1950s.

They built a machine -- they had to design it themselves, it went up four stories in one of their buildings -- that isolated the smoke, took huge amounts of smoke and broke it down into minute particles so they could start to focus on the chemistry of the cigarettes and try to figure out what in cigarettes, if they could find it, they could take out to make the cigarettes less dangerous.

Over the years, by 1960 Reynolds -- the -- a total of about 450 compounds had been identified in smoke. Now, people all over the world were studying smoke chemistry. But I can tell you the evidence will show that of the 450 chemicals found in smoke by 1960, Reynolds had discovered about 300, and it had published them in the literature. It had discovered over half of all the chemicals known in smoke.

Today, although Mr. Paul said in his opening that there are 200 chemicals in smoke, there are 4800 chemicals that have been found in smoke, 4,800. Reynolds' scientists are responsible for having found over half. Of all the scientists in the world, Reynolds has found over half.

Most of these are in absolutely minute quantity, measured in nanograms, picograms; that's billions, trillions of a particle. Of those, about 40 of the chemicals that have been discovered in smoke have been identified as animal carcinogens. That is, if you give in sufficient quantity to an animal, the chemical, it can create cancer.

Some others have been determined to be cancer promotors and others cancer inhibitors. That mixture is very common in any burnt material. It's on the surface of your steak, if you

broil it. It's in leaves when they burn. It's in anything that they burn.

Indeed, one of plaintiff's experts, Sir Richard Doll, will say, We live in a sea of animal carcinogens. It's all around us. It's in the air. It's everywhere.

The first of the carcinogens that was believed to cause -- believed to be the likely cause of the observed increase in lung cancer among smokers is called benzopyrene and that was discovered to be in smoke in the early fifties.

By 1964 though, when the Surgeon General issued his famous report that I'll come to in a few minutes, the Surgeon General determined -- and I think the experts in this case will say -- there's simply not enough of it in smoke, in cigarette smoke to account for the lung cancer increase that's seen in smokers.

In fact, no one knows, as plaintiffs expert Sir Richard Doll will say, which chemical or chemicals are most responsible in smoke for the observed increase in cancer or other diseases.

Work continues in that area. But you can imagine the difficulty that makes for cigarette designers in trying to figure out which chemicals they can eliminate or reduce, because if you -- if you reduce some chemicals you increase others.

And there has been a -- what amounts to a moving target for cigarette designers in trying to figure out how to design cigarettes. But throughout, the designers at Reynolds have followed the public health literature and their own research,

which they published, in order to determine the best way to make cigarettes that smokers will want to smoke and will remove, first of all, all of the chemicals to the extent possible, and secondly, specific chemicals to the extent possible.

All right. Now, I mentioned here designing products to reduce tar and nicotine. Not only did they study smoke chemistry but they even -- even in the late 1940s before the first published reports in the literature -- worked on ways to reduce tar and nicotine in all cigarettes.

And one of the first ways was the invention of reconstituted tobacco sheet. It's long been known that the cigarette stem -- I'm sorry -- the tobacco stem contains less nicotine than the leaf. It's also been known that it burns somewhat cleaner. It has less tar. But a stem can't be made into a cigarette or a cigar because it's just too hard. It -- smokers don't -- wouldn't like it. It doesn't look like tobacco.

In the late 1940s, Reynolds invented a process to take the stems and to process them basically into paper and then to cut the paper so it looked like and would smoke much like regular tobacco from the leaf. That invention by itself reduced tar and nicotine in all cigarettes in which they were constituted tobacco sheet was one, including unfiltered cigarettes.

In fact, Sir Richard Doll, again, plaintiffs expert who you will hear from, says that the reduction that occurred from 35 milligrams of tar to 25 milligrams of tar from the 1940s to

the 1950s and early 1960s in average cigarettes made cigarettes less dangerous, reduced the amount of lung cancer attributable to cigarettes by 20 percent. That invention was Reynolds'.

The first cigarette, first filter cigarette that was ever successful in the American market was Winston. It was introduced by Reynolds in 1954. And that's the chart --

You anticipate me. Thank you.

Reynolds made a number of inventions that were used in Winston that specifically reduced tar and nicotine as measured by the FTC standards, and those are the only standards that the government allows or that the researchers use.

As you can see, in 1954 the tar yield of a Winston was 38 milligrams, which was about the same as unfiltered cigarettes at the time.

In 1956, Reynolds introduced a faster burning paper on the outside of -- of the tobacco. It was thought -- some people thought at the time that it might be the paper rather than the tobacco that was responsible for the observed increase in lung cancer rates, and that had something to do with the introduction of that faster burning paper. But in addition, the faster burning paper made the tobacco burn a little bit differently and allowed the reduction of tar and nicotine.

In 1957, Reynolds made the filter longer. That reduced the amount of tobacco in the cigarette. Indeed, it reduced the amount of available nicotine in the cigarette.

In 1959, it introduced porous paper. And this isn't -- these aren't holes, perforations in the filter where Mr. Paul said that people hold their hands when they smoke. And by the

way, people don't hold their hand like this (indicating) when they take a puff on the cigarette, they take their hand off it. But this is the -- this is the paper itself wrapped around the tobacco so that air came in throughout the cigarette reducing the concentration of smoke.

In 1963, Reynolds made the circumference narrower. Essentially making the cigarette, although it seemed to the smoker to be burning at the same rate, giving less smoke. The overall effect of that as you can see is that tar in 1938 was 38 milligrams. And in 1962, when Mr. Lucier says that he first smoked Winstons, tar was 22 milligrams. Almost half.

Nicotine in 1954 when the cigarette was introduced was about three milligrams. In 1962 it was one and a half. Both had been cut down in half before Mr. Lucier had ever smoked a Winston.

Now, the Reynolds' story with Mr. Lucier ends in 1966.

Thank you very much.

And I believe that Mr. Barron may discuss additional advances that were made in cigarette design after 1966 when Mr. Lucier smoked products by Philip Morris. If not, certainly you'll hear them -- about them during the trial.

But let me give you just a little bit of an overview of some scientific work that was done in the years after 1966 that Reynolds was a part of because it will bear upon much of the evidence that you hear in this case.

In the 1970s the United States Government, the National Cancer Institute, worked -- offered a program to try to design less hazardous cigarettes. It was called the Tobacco Working

Group. Reynolds participated. Principal Reynolds scientists participated. So did Philip Morris scientists. So did Ernst Wynder's Associates, the researcher you heard about before. That was jointly funded by the government and the cigarette companies, jointly participated in by them. And it proposed the kind of advances in cigarette design that you will hear protested, criticized by the plaintiffs in this case.

After about ten years the evidence will show that for political concerns of some kind the government stopped funding the program.

So what did the cigarette companies do? Did they stop doing the work? No. They got together with the same outside scientists, like Ernst Wynder's Associates, and they went to what was called the Banbury Conference. And they continued to work on exactly the same kind of issues, trying to find ways to make cigarettes that would be palatable to smokers, that smokers wanted, but that would reduce the risks. And many ideas came out of that, and all of them were incorporated into the cigarettes made by these companies.

Indeed, what you will see is that these American companies led the world in cigarette design and led the world in reduction of tar and nicotine. And they also monitored each other, making sure that -- looking at each other's cigarettes, making sure first of all that those cigarettes -- that there weren't any advances that they didn't know about. And

secondly, making sure that the cigarettes conformed to government standards, and if they didn't, they would bring a suit against each other. That happened not in the case of

these two companies, but these two companies brought a suit against another company.

Now, these companies did that work despite the fact that consumers were slow to go to lower tar cigarettes, especially ultra low-tar cigarettes. Because they didn't want them. They did it not because of the demand generated by consumers but purely for the hopeful health of the consumers. And there was a tremendous amount of resistance from some consumers despite what those consumers read in the paper.

You should know that the Surgeon General and various public health authorities in the 1970s and 1980s were publicly suggesting that smokers switch to lower tar cigarettes.

Mr. Lucier you will hear heard a number of calls for such switches. But that notwithstanding, Mr. Lucier said that he had no interest in trying cigarettes with lower tar and nicotine from the Merits that he chose. He knew there were ultra low-tar Merits. He decided not to use them. He had no interest in them.

He wanted a cigarette that fit just what he wanted. He wanted to have the filter that he liked, the draw that he liked and the taste that he liked. And although he tried some cigarettes he said like True and Vantage that had funny filters as he saw them, he said he wouldn't smoke them even if he thought they provided less risk. He had no interest.

He would not move to what he viewed or what was called a less -- potentially less hazardous cigarette, a lower tar and lower nicotine cigarette unless it was one he wanted, and he didn't even want to try them.

Now, what about warnings? Today we live in a different world than in the fifties or the sixties. And, in fact, Professor Schaller when he comes here will tell you a little bit about how historians look at different periods of time and try to put things in context. They actually refer to what they view as a prejudice, what they call presentism, when people try to look at the past through today's eyes, try to view the past through today's standards. They view that as a prejudice, something that historians as part of the historical method work very hard to avoid.

Today we have warnings on products of all kinds. Everyone here is familiar with them. They're on alcohol. They're on food. My favorite is the Batman cape that says, "You can't fly with this."

But in the fifties there were no warnings on any consumer products. On any consumer products. And the first call for warnings of -- on consumer products came with cigarettes in the fifties when the first studies were being published.

The public health authorities though looked at it quite differently than they do today. First of all, society viewed this issue not as a company-by-company issue, but as a societal issue from the very beginning. And the question was, Should some unitary, unified warning be put on cigarettes? The idea was introduced in the mid-fifties.

Now, if I could have slide number twelve, please.

Here's the director of the American Cancer Society in 1955. "In my opinion people should be warned of the danger, and they are being warned. What they then want to do, whether

they wish to smoke or not, is their own business."

The calls for warnings that first came up at the time were rejected because public health authorities believed that the public was hearing all of this information through the press and the public had enough information to make its own decisions.

Indeed, there was a flood of information. And the suggestion by plaintiffs in opening that either of these companies, or any companies, could stand in the way of that flood of information is wrong in a number of ways.

The evidence will show that these companies did not stand in the way of that flood of information. And the evidence will also show that any attempt to do so would be like trying to hold back the tides. The amount of information about the health risks of cigarettes was so widely disseminated for so long and in so many different media that no one could avoid it.

Now, the big call for warnings on cigarettes came after the 1964 Surgeon General's report.

Thank you very much, Melanie.

Let me tell you the story. In 1962, President Kennedy was at a press conference, and it occurred after some medical authority's mailing had concluded that cigarettes were a cause of lung cancer. In England they were much faster to grab epidemiology and statistics as a way to establish cause than in the United States. President Kennedy was asked about it and he said -- about the health risks of cigarettes -- and he said, I'll refer that to the Surgeon General, that question to the

Surgeon General.

The Surgeon General then appointed a committee of distinguished scientists, none of whom had written on smoking health, all of whom would by definition come with a free mind to look at the project, to look at the issue.

There was tremendous public reporting about it. For two years the Surgeon General's committee met in secret, and there were reports about leaks coming from the committee about what they were studying and what they read and what they were concluding. The public was clamoring for their answer.

By the way, Mr. Lucier as you'll see and as I'll come to in much greater detail, young as he was, was already becoming what we might refer to as a news junkie, someone who read the paper and watched the news on TV on a regularly -- on a fairly regular basis, every day. In fact, he was already subscribing to magazines at the time, news magazines.

In 1964, January of 1964, the report was ready. It was such a big story that the committee rather than going to what was then the Department of Health Education and Welfare, now the Department of Health and Human Services, didn't hold its report in the auditorium of that agency but went to the State Department where there was a bigger room, bigger auditorium.

They issued the report on a Saturday because the stock markets would be closed. They brought in the reporters and locked the doors, gave them an hour to peruse the report before the Surgeon General came in to answer questions.

Then the Surgeon General came in. What the report said was that it was the conclusion of the committee that even

though the experimental evidence had not produced cancer in the

lungs of animals, and even though the mechanism was not known, it was their judgment, based on the totality of evidence primarily from the statistics, the epidemiology, that cigarette smoking was a cause of lung cancer in men. And likely in women, although they reserved that decision for a few years.

After -- after that report came out it was reported throughout the country as one of the biggest news stories of 1962 -- 1964. And the news stories of 1964, as you'll hear, were enormous stories. Assassinations in this country, two horrible assassinations in this country, a presidential election, the apex, the center of the civil rights movement. In that group of enormous stories this was one of the largest stories of the year. Indeed, one of the largest stories of the decade. And the story of cigarettes and health is the public health story, you will learn, of the century.

Now, in the wake of that report there were various calls for different kinds of action by the government. Some people said, Ban cigarettes. Other people said, Put on warnings. Other people said, Regulate them in a different way. Different federal agencies in different states started to -- to develop their own regulations with regard to cigarettes, and then Congress stepped in.

It determined that cigarettes were a legal product, reaffirmed that they were a legal product, and that commerce in cigarettes and sale of cigarettes were legal. It also mandated a warning and it wrote the warning itself. And that first warning that came on in 1966, which is slide fourteen, was this

simple one. "Caution: Cigarette smoking may be hazardous to your health."

Thank you.

Now, that warning was not intended to state everything that people had heard about the risks of smoking. Rather, it was to be the same kind of warning that you get at home from your mother when you're growing up. "Remember what I told you. Remember what I told you." And people did remember what they were told. And people -- Mr. Lucier and others you will learn -- understood exactly what that referred to. It referred to lung cancer.

Now, having come this far and discussing the Reynolds story and the scientific story, I'm going to turn to the Larry Lucier story.

Put up the next.

How many lawyers does it take? Okay.

Mr. Lucier was born in 1950. He started watching the TV news regularly in 1957. He started his life-long interest in following the news at a very young age. He was living in Rochester, New York. And way back in his youth, as I mentioned yesterday, the evidence will show that he heard cigarettes referred to as "cancer sticks" and "coffin nails." And he also heard the people who smoked and who didn't have a cigarette wanted a cigarette were having "a nicotine fit." And he understood that that meant that they had -- they felt they had a need for another cigarette.

In 1960 at the age of ten he started to read the newspaper regularly. And at the same time he was taking safety

and health classes in school that taught specifically about the health risks of smoking.

In 1961 his family moved to Missouri. Clayton, Missouri, a suburb of Saint Louis. His father had become president of

the largest regional telecommunications company and they moved into a big house. There were eleven brothers and sisters. Mr. Lucier had his own room. He says that that big house gave him places to hide and to smoke.

And it was just in that year when, according to his testimony, he and his sister -- actually his sister started first -- but he started to steal his mother's, and sometimes his father's, cigarettes. His mother lived at home, stayed at home, worked in the house. His father was off at work. So it was his mother's cigarettes, the Kents, that were most available. And he says that he was smoking about two a day starting in 1961.

As I address this smoking history I think the record will show and the evidence will show that the only source we have for the amount that Mr. Lucier smoked or when he started different brands, but particularly the amount that he smoked, is Mr. Lucier himself. And you'll have to judge whether the amounts he says he smoked were accurate.

In 1962 he started to subscribe to Time magazine.

And could we have the slide, please.

This is the extent to which Mr. Lucier was a news junkie as I called him. He started watching TV nightly news on NBC, the Huntley-Brinkley Report in 1957, and he continued watching that every night until 1963 when he switched to Walter

Cronkite, and later Dan Rather on the CBS Evening News. He's watched that religiously the rest of his life.

On Sunday mornings he would watch both Face the Nation and Meet the Press, starting in the 1960s.

In the 1980s and 1990s he watched the McNeal-Lehrer Hour report on PBS for news as well. And starting in the 1980s and through the 1990s he watched Nightline at 11:30 on ABC. He also watched cable news. His favorite was Fox throughout the last decade.

Starting in 1960 he began to read the newspaper wherever he lived. First the Rochester Times Union and then the Saint Louis Post Dispatch, and the Phoenix Gazette when he lived in Arizona, back to the Saint Louis Post Dispatch, the Phoenix Gazette, The Miami Herald when he lived in Florida, and the Chronicle and Examiner in Northern California, mostly in San Francisco.

He also read the Wall Street Journal while he was in college and buys it whenever he finds it available. And he reads the New York Times when it's available. And he started subscribing to Time in 1962 and has read it religiously ever since.

The evidence will show that this is not a man who was unfamiliar with all that has been written and said about the risks of smoking. This is a man who is particularly familiar with it and has been all his life.

Now -- thank you very much.

Returning to the time line. In 1964, the Surgeon General's warning -- the Surgeon General's report came out. It

was reported in all of those media that we were talking about. You will see it was in Time magazine; you will see it was in his local newspaper; and it was the central issue on many TV shows. And those reports were all the same; this kills. Secondly, it's up to you to decide what to do about it.

It had no effect -- whatever effect it had on Mr. Lucier's conscience, it had no effect on his conduct. He

continued to smoke. He made no effort to stop.

Now, in 1965, as you've heard, Mr. Lucier went to a boarding school, a seminary, and stopped smoking for seven months. You will hear that he had no symptoms of withdrawal when he stopped smoking. None whatsoever. He would have liked a cigarette, but he had no symptoms whatsoever.

When the seven months were over and he came out of the seminary he decided to smoke. And the reason he decided to smoke was he had decided he didn't want to stop. And when he picked up a new pack of cigarettes it had the warning on them. Here he had stopped smoking for seven months; he picked up cigarettes that had the warning; he remembers having seen the warning; he understood the warning; and he decided to smoke. He decided to start smoking again with the warning on the package.

It was right about that time -- and the evidence is unclear because Mr. Lucier has given slightly different accounts whether he went immediately to Marlboro or whether he smoked Winston for about two months before switching to Marlboro when he came out of the seminary. But in any event, that was about the time he switched to Marlboro.

Now, through all of this he understood that he wasn't supposed to smoke. Through all of this time until he was an adult he never smoked in front of his parents. He hid it from his parents. He hid it from school. He also hid it from the woman who worked in his house, an Malvina Connolly (phonetic).

Somehow Mr. Lucier says he was smoking a pack of cigarettes a day starting in 1966. And his mother didn't know and his father didn't know and his domestic servant didn't know. And he didn't smoke in school. He never smoked on school grounds. He knew that that was not allowed.

We will not contest that he smoked during that period, but the amount that he smoked, that he says he smoked, which you will see is inconsistent with what he told doctors over the years, does not seem to be in any way related to the amount of time that he had available to smoke or the amount of -- the amount of work he did to hide his smoking.

In 1968, Mr. Lucier's father who was a three-pack-a-day smoker stopped cold turkey. It had no effect on Mr. Lucier.

In 1969, a new warning came out by Congress. "The Surgeon General has determined that cigarette smoking is dangerous to your health." And Congress amended the law to say, not only that no other warning could be on cigarettes, but that no one could suggest that that warning was anything other than adequate.

From that, Mr. Lucier saw the warning. He understood the warning. It had no effect on his conduct. He didn't try to cut down. He didn't try to stop. He had no interest in it.

And when you hear testimony or argument that an earlier

warning would have affected Mr. Lucier's conduct, you will also hear Mr. Lucier himself who said that if that warning had been on his cigarettes in 1966 when they picked them up again -- when he picked them up again, it wouldn't have affected him. And indeed, he can't even say it would have affected him in 1960 or 1961.

Could we play clip nine, please.

(Videotape played.)

MR. GROSSMAN: Plaintiffs will not be able to meet their burden to show, among other things, that an earlier warning

would have affected Mr. Lucier's conduct. You'll see as other warnings came out nothing affected Mr. Lucier's conduct.

Now, in 1976 -- in the early 1970s, Mr. Lucier heard reports that cigarettes with reduced tar might be -- might reduce risk. He heard reports that tar itself was unhealthy. It really had no effect on his conduct for a long time. He tried a couple of low-tar cigarettes but he was not interested in them at all.

Then in 1976 -- and let me just make one correction for the record. Notwithstanding what Mr. Paul told you, the record will show that Mr. Lucier was on the ranch; it was his family's ranch; and he went there after he had gone to a little bit of college; he went there to run the ranch, run all the cowboys; that he was on the family ranch in Arizona in 1976 when he switched to Merit. Well, it was just when he became a cowboy or was working with cowboys that he switched away from Marlboro.

In 1978, his sister Jeanette stopped smoking. No effect

on Mr. Lucier.

1979, having gone back to school, Mr. Lucier became an accountant. And the evidence will show that Mr. Lucier was not someone that trusted everything that companies said. Just the opposite. Mr. Lucier was one of the most cynical men imaginable when it came to company statements. He was trained to be cynical. He was trained to look at what companies said in a variety of contexts and test the proposition.

In fact, it's Mr. Lucier's testimony, he believes, that everybody kind of cuts the edges. It's his testimony that he thinks there's fraud everywhere, and as an accountant that's what he thought. It's his testimony that he didn't trust corporations for what they said but looked into the subject matter, looked to check whether what they were saying was accurate. That's what an accountant does, and that's what he did in his entire professional life.

In 1984, Congress amended the warning again. Congress has drafted all of the warnings. And it put on four rotating warnings. One of them said that cigarettes contain carbon monoxide. Another one dealt with the risks of pregnancy. The other two are here on this board. "Smoking causes lung cancer, heart disease, emphysema and may complicate pregnancy."

Mr. Lucier saw that warning. His brother Philip stopped smoking the same year. It had no effect on Mr. Lucier.

As I said earlier, whatever effect it may have had on his conscience, it had no effect on his conduct. Indeed, you will hear Mr. Lucier say that if this warning were on his early cigarettes it wouldn't have affected his conduct. Because he

wanted to smoke.

The warning also said -- the other warning said, "Quitting smoking now greatly reduces serious risks to health."

And the public was given a great deal of literature in the papers that Mr. Lucier read and the things that he saw on TV. And by the way, Mr. Lucier also says that if there were a smoking and health article in his paper or in Time magazine, as a smoker he would read it. So he wasn't turning these aside. He read them.

What the Surgeon General was saying in 1984 and what the American Medical Association was saying was that if you stop smoking you can greatly reduce your health risks. They

continue to say it.

Indeed, Richard Doll, plaintiffs' expert, will testify in this case I believe that if a person stops smoking by the age of 30, they essentially reduce all the risks that they could have had from smoking. And even if a person stops smoking at 65, they greatly reduce the risks from smoking.

Mr. Lucier had not smoked enough by 1984 for most doctors to say that his smoking could have been the cause of any later disease.

From Reynolds' stand point, this is very important, Mr. Lucier has almost no Reynolds smoking history. He was smoking far less than a pack a day when he was smoking Reynolds cigarettes and it was over a very short period of time.

No one will take the stand to tell you, from either side, that if Mr. Lucier had just smoked the Reynolds cigarettes, the

Winstons, that it could account for any later illness. Nor I believe will anyone take the stand to say that this amount of smoking compared to the rest -- or in addition to the rest had any significant effect on his health. There just isn't enough Winston history there to have an effect on his health.

Now, Mr. Paul discussed advertising. Here's what the evidence will show. Mr. Lucier didn't start smoking because he saw an ad and ran out to get a cigarette. He started smoking because of what some might call peer pressure. In this case, sister pressure and because his parents smoked. And he smoked out of rebellion and a sense of comradery and a sense of curiosity. And he continued to smoke because he liked it.

And he picked his next brand, Winston, not because he heard a jingle, "Winston tastes good like a cigarette should," and I don't think anyone here is making a health suggestion that in "Winston tastes good like a cigarette should" that this is somehow a safer brand than another. It's a pure product ad of the kind made of any consumer product.

In any event, he didn't start smoking Winstons for that reason but because that was his brother David's cigarette and they were available. And he switched to Winston because he preferred the taste. And that's his testimony and that's -- that's the reason for it.

Now, ladies and gentlemen, the evidence will also show that before Mr. Lucier was deposed last year at the request of his own lawyer, Mr. Lucier's lawyers sat him down for six-hour sessions over a period of two days in which they showed him advertisements to prepare him for his testimony. Went over

ad -- cigarette ad, over cigarette ad, over cigarette ad. Not ads that he provided to them, but ads they provided to him to prepare him to say that advertising had something to do with his smoking. The evidence will show that advertising had nothing to do with his smoking.

Returning to the time line. In 1985, Mr. Lucier recalls having seen a specific anti-smoking ad on television, and it's so dramatic I want to show it to you. Could --

MR. PAUL: I have not seen this. Which one are you talking about?

MR. GROSSMAN: Yul Brynner. Yul Brynner.

MR. PAUL: Okay. That's fine.

MR. GROSSMAN: Clip ten.

(Videotape played.)

MR. GROSSMAN: The commercial from the grave that Mr. Lucier remembers even now. Like all the other warnings he

received, it had no effect on his smoking. He didn't make an effort to stop or to cut down. And certainly we don't criticize him for that. That's not what I'm suggesting. But he's bringing a suit saying that he wasn't warned. This is what he remembers having seen.

In 1988, Mr. Lucier's mother died of a stroke. The family, particular Elouis, the oldest sister who was a nurse, attributed it to smoking. And it was in that year that his brother David stopped smoking and his sisters Mary Jane and Barbara stopped smoking. It was in that year that his brother started to say to Larry Lucier, "That shit will kill you." And Larry's constant response was, "Maybe it will, maybe it

won't."

Now, when Richard Doll's testimony is played for you, it's on videotape, I believe that you will hear that Dr. Doll says that Larry Lucier got it exactly right. No one can say if you smoke you will get cancer, but rather, maybe you will, maybe you won't. At a personal level, that's exactly right. Mr. Lucier understood exactly what the risks were, and they were risks he was willing to accept.

In 1992, Mr. Lucier called his brother-in-law, Elouis' husband, Gerald Ondash, and asked for a patch. It was the first time he had ever considered in any way stopping smoking.

Your Honor, you asked for a break around 10:00 o'clock. This would be a good time.

THE COURT: We'll take a ten-minute recess now. Remember not to discuss the case. Ten minutes.

(Recess.)

THE COURT: Please bring the jury in.

THE COURT ATTENDANT: Remain seated and come to order. Court is again in session.

THE COURT: Okay. Mr. Grossman.

MR. GROSSMAN: Thank you very much, your Honor.

Hi again.

On the question of whether Mr. Lucier was warned about the conducts that he engaged in, whether he was somehow defrauded into believing that cigarettes were safe, you will hear a great deal of testimony from Mr. Lucier about everything that he knew, about all of the risks in his life and the way he responded to them. And you will learn about his attitude

toward risk generally, perhaps best demonstrated by this conversation noted on the slide.

Could we have please slide number 18.

When Mr. Lucier went to the hospital for his brain metastasis in January of 2000, he wanted to go take a shower. He had a risk of seizures. He could die in the shower. And the nurse told him that. She said, as you'll see in the nurse's notes as part of his medical records, "Patient states he needs to be showering. Not aggressive, just stubborn. Not good decision-making."

And then the nurse instructed the patient about the risks of seizure if he decided to take a shower. Fair enough. Let it up to him to decide whether to take the shower, and he said he had done well in life by risking it. And she underscored it and put an exclamation at the end.

Thank you very much.

Mr. Lucier was ready to take risks with a variety of his conducts. It was not that he did not know the risks involved. When plaintiffs say that he would not take a risk, the facts

will be otherwise. Consider that Mr. Lucier simply didn't take responsibility for his decisions.

Let me play you a portion of Mr. Lucier's sworn testimony.

I'd like clips six and seven, please.

You can draw your own conclusions.

(Videotape played.)

MR. GROSSMAN: Throughout jury selection and throughout the opening Mr. Paul told you this case is about personal

responsibility. It is.

Let's turn to the question of addiction. The first time Mr. Lucier ever attempted, or says he ever attempted, to stop smoking is in 1992. He called his brother-in-law, Gerald Ondash, and asked him for a patch which then was available only by prescription.

You'll learn that the effort, such as it was, was halfhearted at best. He wore the patch for a little while but continued to smoke. Never threw away his cigarettes, never threw away his matches, never threw away anything. Just smoked a little less for a period of time while he wore the patch and then he threw away the patches.

A couple of other times he went to hypnotists. He didn't throw out the cigarettes before he went in to the hypnotists. And, in fact, he lit up a cigarette in the car when he came out. He was hoping the hypnotists would hypnotize him into deciding that he didn't want to smoke, but the problem is he never decided that he didn't want to smoke.

In fact, you will learn that such efforts as Mr. Lucier made to stop smoking were halfhearted at best, because he never had any intention of changing his conduct, just as he never had any intention really changing his conduct with regard to high-fat foods or lack of exercise or anything else.

He could have stopped, just as his father did, just as his brothers did, just as his sisters did, just as 50 million Americans stop. More than half of every American who ever was a regular smoker has stopped permanently. The evidence will show that. The Surgeon General says that. Sir Richard Doll

says that too, plaintiffs' expert.

Indeed, the evidence will show that some people stop without much difficulty, some find it hard, and some find it very hard. Some people -- and this has been known for at least a century -- some people who stop smoking get small -- relatively small physical symptoms. They can get a little bit of an upset stomach. Some people can get a headache. Some people can have trouble with sleeping. That lasts no -- no more than two or three weeks because by then any nicotine in the body is out. All nicotine is flushed out.

Mr. Lucier whenever he stopped smoking, and there was only really one time when he stopped before he was ill entirely, and that was the seven-month period, or when he cut down to two or three cigarettes six months before he was diagnosed with cancer, he never had any physical symptoms. He reports he never had any physical symptoms. He wanted a cigarette, but he never had any physical symptoms.

Nor when he made his -- his purported efforts to stop in the 1990s did he stop for any appreciable period of time. He cut down to two or three cigarettes in the months before he was diagnosed with cancer. But as far as stopping was concerned, he never stopped for more than a few hours.

Now, this was not a man who was a three-pack-a-day smoker. He will tell you that he smoked one pack a day continuously. And by the way, he didn't go up when he went from Marlboro to Merit. He kept it at the same level from Marlboro to Merit. He will say that he smoked one pack a day continuously in his adult life. And he would go hours at times

without cigarettes normally, normally, without any effort to stop.

Now, the experts who the plaintiffs call -- Dr. Benowitz who you heard Mr. Paul refer to -- say that an effort to stop smoking, a bona fide effort, a real effort to stop smoking means you have to stop at least a day. They don't even count it as an attempt to stop smoking if you don't stop for at least a day.

Mr. Lucier by the plaintiffs' expert's own definition never made a real effort to stop smoking before he was sick. Not once. And the reason is simple, because he didn't want to. And that's all right, but he doesn't take responsibility for it.

Ladies and gentlemen, some people just don't want to give up what they enjoy. Just as some people who are overweight know that their health might be better if they lost weight but they don't want to diet. And that's all right, but it's a matter of personal responsibility, as Mr. Paul told you.

Now, let me turn briefly to the question of how to describe the question of whether cigarettes are a habit or an addiction or a dependency. It's been known for a hundred years or more that people who smoke often find it very hard to stop. We've probably all heard Mark Twain's line from a hundred years ago, "Giving up smoking is the easiest thing in the world. I've done it a thousand times." There's nothing new about that, nor is there anything new about the idea that nicotine is reinforcing and that people often smoke for nicotine. That plays a substantial role, not the only role, in why people

smoke. That's been known forever.

The name to be given to that varies with the definitions and kinds of terms that different scientists use. In popular terms we -- we say a lot of things are addictive. We may say that we're addicted to running. We may say -- we talk about people with a gambling addiction, which can be a huge compulsion in a person's life. We also talk about heroin addiction or alcohol addiction.

It's fine to use the term "addiction" in that broad sense for very many things, but we should understand, the evidence will show, that there's a very substantial difference between smoking conduct and heroin or alcohol -- or alcoholism.

The -- a person who smokes, as I said, may get some mild stomach discomfort and headaches and even lack of concentration to a very small extent for a short period of time after they give up cigarettes. But people who -- who are alcoholics can get the DTs, they get hallucinations, they run a high fever, and without medical treatment they're likely to die from the DTs themselves, from the -- from just coming out of the alcoholism.

Another thing that makes alcoholism or heroin different is that it's intoxicating. People lose their sense of judgment. Their maturity is arrested. They lose their judgment entirely. And it doesn't just apply to the use of that product but generally. There's nothing like that with

cigarettes or tobacco. No one suggests there is.

Now, the World Health Organization and the American Psychiatric Association use the term "addictive" to apply only

to conduct such as heroin addiction or alcoholism or morphine or other opiates where the product is intoxicating and where the withdrawal symptoms are so severe.

They refer to cigarettes as something that creates a dependency. The Surgeon General in 1964 looking at the evidence, which was the same then as now, said that cigarettes were a habit, although a strong habit. In England they say it's a habit of addiction.

The term that you use doesn't make any difference. I'm just as happy with "addiction" as "dependency" or "habit" as long as everyone understands it's the facts that matter, not the name that's given to it.

And let me say also as to the role of addiction or dependency or habit in this case, there's no claim for addiction as such. The plaintiffs are not claiming -- are not seeking money on the ground alone that Mr. Lucier was addicted or dependent on cigarettes. They were offering it as a way of --

MR. PAUL: Your Honor, I'm going to object to -- well, I just object to representation of what's being claimed in the case. That's obviously a legal issue.

THE COURT: Sustained.

MR. PAUL: Thank you.

THE COURT: Proceed.

MR. GROSSMAN: Ladies and gentlemen, the evidence will show that Mr. Lucier smoked because he wanted to, he smoked when he wanted to, in the amounts that he wanted to. He liked the taste of cigarettes. He liked the feeling that he was

withdrawn from the world, a sense of detachment when he smoked cigarettes. He liked the feel of it in his hand. He'll tell you all of those things. He smoked because he wanted to, and he continued to smoke because he wanted to.

Now, I told you that I would save to the end the question of Mr. Lucier's medical condition. I told you I'd build up to it. And we're there now.

Obviously, if Mr. Lucier did not have lung cancer caused by smoking then the plaintiffs can't get to first base. And the evidence will show that Mr. Lucier did not have lung cancer caused by smoking Winstons. And although I don't represent them, the evidence will show that Mr. Lucier did not have lung cancer caused by his smoking the Merits and other Philip Morris cigarettes, the Marlboros that he smoked. The evidence will show that conclusively. And the plaintiffs will not be able to meet their burden that Mr. Lucier had lung cancer caused by smoking.

As I enter into this topic, let me just state a couple of things. Cancer is the name that we give not to one disease but to many diseases. And to doctors and scientists those diseases have different names broken down into many, many subcategories. All of them have one thing in common. The DNA in a cell, the signature of the cell, the composition of the cell switches somehow. And then the cell, then it expands and takes over other cells next to it. And all of these are diseases that can spread, spread from one organ to another in the body.

You'll hear about primary science and metastases in this case. Cancer is called by the name of the organ where it

starts. If cancer starts in the kidney and then metastasizes to the lung, it's still kidney cancer. It's not lung cancer. Kidney cancer with a metastasis. If it's start in the lung and goes to the brain, it's not brain cancer. It's lung cancer that's spread to the brain.

And the risks for the kinds of cancer that one talks about come from the primary site. One refers to lung cancer as one of the risks of smoking. There are other risks as you'll hear, including diet. Diet is a major risk factor for lung cancer, as Sir Richard Doll will tell you. That's why in Japan the people have so much lower lung cancer rates even though they have higher smoking rates.

Dr. Doll's testimony will not be that charcoal filters -- which by the way have been available in America for many years -- have anything to do that with. Charcoal filters reduce a certain part of the gas concentration in cigarettes. It's called phenols. That's reduced in other ways as well by cigarette -- by cigarette designs. But the epidemiological evidence shows no relationship between charcoal filters and lower health risks.

What does show a tremendous relationship is a diet that's high in fish, high in vegetables and low in animal fats and margarine and butter and other saturated fats, as you will hear from Dr. Doll and others.

In any event, when cancer spreads it's the primary organ that one looks to to determine the risk factors. And as you'll also hear, while one can say that, for example, smoking is a risk for lung cancer, certain kinds of lung cancer, because

there are many different diseases, no one can say -- and one can say that there's a greater number of smokers who have those kinds of lung cancer than non-smokers.

Dr. Doll, again, will tell you that no one can say that a particular individual's lung cancer was caused by smoking or any other exposure. Because looking at that particular individual's cancer under a microscope, no one can tell what caused it of all of the possible things. On an individual basis the statistics can't apply. But you won't even have to reach that in this case.

In fact, the question of whether there was a cancer in the lung and it started in the lung or started in another organ you won't even have to reach in this case. Normally the first thing that you do when you find cancer in the lung is to determine if it started there or if it spread from another organ like the stomach or the kidney or the pancreas. But you won't have to do that in this case.

What I tell you in this opening is a promise. It's a contract. And in closing I will tell you again the same things I'm telling you now. Now I'm saying what we're going to prove, and in closing I'll say this is what we proved. And you have a right to ask yourself are we proving what we said. You have the same right to ask that of Mr. Paul, of the plaintiffs.

Let me write on a board -- this is the how many lawyers does it take again -- some things about Mr. Lucier's medical condition that we will prove in this case. When I say we will prove it, plaintiffs have the burden. They will not prove it.

MR. PAUL: Your Honor, may I move around to see what is

being written?

THE COURT: Please.
MR. PAUL: Thank you.
MR. GORDON: Push it back a little.
MR. GROSSMAN: Wait until I'm ready.
No cancer cells have ever been found in Mr. Lucier's lung. Never. Mr. Lucier was diagnosed with cancer. It was a pathological finding that he had cancer. But let me explain how that was arrived at and where those cells came from.
Mr. Lucier in 1999 had pain in his flank, and he had a history of night sweats and fevers and he went to the doctor. And they had a number of what's referred to as differential diagnoses, a number of different hypotheses to explore.
They did a CAT scan that showed that in the middle of the chest there were shadows. Could be an infection, could be cancer. They needed to probe to find out.
So the first thing they did was they did what's called a bronchoscopy. That's a procedure in which they put a little tube down the nose, all the way down into the lungs. And they looked in the lungs for something to snip that looks like it might be a lesion, might be a tumor, might be cancerous.
The pulmonologist who did the bronchoscopy found nothing to snip. In fact, he didn't find any smoking-related damage of any kind whatsoever. Often in lungs that don't have cancer there are little changes that can occur from long-term exposure to smoke, or believe to occur from long-term exposure to smoke, like metaplasia and hyperplasia. There's nothing like that in this case. They didn't find any smoking-related injury to the

lung whatsoever, and they didn't find any tumor in the lung whatsoever. So then they performed another procedure.
And if I could please have slide 16. Can you see that, everyone, past this? No?
(Pause.)
MR. GROSSMAN: The lungs on the body are over here. Left and right side. In between there's a bunch of other things. There's the heart and a little organ called the thymus, and there are lots of blood vessels and lymph nodes and lymph systems. That area in between the lungs is called the mediastinum which contains the heart.
What -- what they did next was they performed a procedure to look at Mr. Lucier's mediastinum because it appeared that there might be growths around here in the pretracheal nodes, and also in this part of the mediastinum that's next to the lung but not in the lung which is called the hilar node. They're called the hilar node. These nodes over here.
And they cut a little hole in Mr. Lucier's neck and they took a scope that went down into the mediastinum, not into the lungs, and from the pretracheal nodes, which are over here, they pulled up what was found to be cancerous tissue.
Now, I told you there are many different kinds of cancer. The kind that they pulled up, the pathologist in the hospital referred to as large cell cancer, large cell carcinoma. But all of the experts in this case will tell you it's a kind called adenocarcinoma.
"Adenocarcinoma" is an important term in this case. It's the kind -- it's a kind of cancer that can arise in many organs

of the body, almost every organ below the neck. It can arise in the kidney. It can arise in the pancreas. It can arise in the breast. It can arise in the stomach, in the small intestine, in the large intestine and other organs as well.

It's the kind of cancer that can start almost anywhere below the neck. And they found it in the mediastinum.

No one has ever found cancer in Mr. Lucier's lung. No one has ever taken a cancerous tissue from his lung. No one has ever biopsied tissue from his lung that was found to be -- to have any cancer cells whatsoever.

Indeed, a few months after Mr. Lucier was -- was ill they not only had performed this bronchoscopy earlier but they performed a procedure called a transdermal needle biopsy where they take a needle and they go through the chest and they take some material out of the lung. And that also contained no cancerous cells. Nothing ever diagnosed as cancer.

And it will be uncontested in this case that no one has ever taken a cancerous cell, no one has ever found a cancerous cell in Mr. Lucier's lung. None has ever been biopsied. No pathologist has ever found any cancerous cell in Mr. Lucier's lung.

And what happened was, although they found in the hospital in Santa Rosa, although they found the cancerous cells in the mediastinum, which they knew were metastatic, they didn't look for where the primary was. Clearly whatever cancer Mr. Lucier had had spread. And they presumed that because this area is close to the lung and because he was a smoker, presumably he had lung cancer.

The doctor who made the diagnosis was a pulmonologist, a lung doctor, named Dr. Mehta. Dr. Mehta will tell you in this case, either live or by deposition, that he did not rule out cancer in other sites; that there is a good possibility in his mind that the cancer could have arisen in other sites but it didn't make any difference because he was going to give Mr. Lucier the same treatment.

In fact, in light of a number of other factors, including Mr. Lucier's survival and the way he's responded to treatment, Dr. Mehta now says that if he had -- if he looked back on the case again he's not sure he would diagnosis lung cancer even though he is the doctor who diagnosed it; that he would probably call it cancer of unknown primary site, which is a standard diagnosis, or perhaps cancer of unknown primary site with a likelihood of lung cancer. That's as far as he'd go now, and he's the doctor who made the call.

All right. Number two. I'll move -- I'll do it over there. The facts will show Mr. Lucier's symptoms were not consistent with lung cancer.

When Mr. Lucier went to the hospital to the emergency room in 1999 he didn't have any of the symptoms that are normally associated with lung cancer. He didn't have shortness of breath. He wasn't coughing up any blood. He didn't have a history of a cough even. He had no pulmonary, no lung symptoms whatsoever. What he had was not -- not blood in his sputum, in his phlegm from his lungs, but blood in his urine. What he had was a history of fever and night sweats. What he had was pain in the side from -- actually from the spleen.

They also found when they did the CAT scan that there were little dots in his kidneys, dots that were never explored because they decided they didn't have to. They were going to treat him with chemotherapy which works on the whole body except for two places; it doesn't work on the brain and it doesn't work on the sexual organs. But chemotherapy goes throughout the body otherwise and would treat the cancer

otherwise.

Although they didn't believe that they could cure him, they gave him what they thought was paliation, something to make his next few months better. Because they presumed it was lung cancer, and if it were lung cancer it likely would kill him very fast.

Three. Mr. Lucier's response to chemotherapy was not consistent with lung cancer.

One problem with lung cancer is that if it's spread, if it's metastasized outside the lung, it's always uncurable and people die very, very rapidly.

Mr. Lucier's cancer from wherever it started had spread outside the lung into the mediastinum. That's where it was found, the only place it was found until he later had a metastasis to the brain.

Mr. Lucier was given chemotherapy and remarkably -- this is three-and-a-half years ago -- remarkably he has never had a recurrence of any cancer in any part of his body other than the brain in the three-and-a-half years since.

Now, remember, the chemotherapy doesn't get to the brain. So whatever was in the brain was something that had

been growing for a while and the chemotherapy couldn't treat.

A year and a half after the diagnosis of lung cancer Mr. Lucier had a -- had a seizure. They found a small metastasis, a small growth in his brain. They removed it and they radiated the area. He has been well since. He is looked at regularly in which he's given a variety of tests to find any cancer in his body. None has been found.

It has been three-and-a-half years. Mr. Lucier has not had any recurrence of cancer anywhere in his body other than the brain. And that one metastasis in the brain was solitary, has gone away and has not returned.

Now, that doesn't mean that he's out of the woods. No one's saying that. Cancer is a mysterious disease. But it looks good. Every day it looks better. His situation is guarded, but for now he's in complete remission, and the longer he's in remission the better off he is.

And, ladies and gentlemen, if this were lung cancer this would be nearly a miracle. This doesn't happen with lung cancer. It doesn't happen with lung cancer that has spread this far, goes away with chemotherapy. There was no surgery to the chest or anything like that. It just doesn't go away that way.

Four. The cells found in Mr. Lucier's mediastinum were not consistent with lung cancer. It's another promise.

Adenocarcinoma as I told you and the evidence will show is a kind of cancer, a very common kind of cancer. And whenever adenocarcinoma of any kind is found in the lung the first question is, Is it lung cancer or did it come from some

other site? The lung is the most favorite site for cancer to travel to because all the blood goes through the lung.

Here, the adenocarcinoma was of a very specific type. There are four types as you may hear of adenocarcinoma; one is called papillary; one is called acinar; one's called bronchioloalveolar.

This kind of adenocarcinoma has a very distinct appearance under the microscope. It looks like a signet ring. The cells look -- have lots and lots of liquid in them and then they've got like an eye, a big eye, and a very distinctive

appearance to a pathologist. Both the plaintiffs' expert pathologist and ours say that these were signet ring cells.

Now, until only about ten years ago it was believe that signet ring adenocarcinoma could never start in the lung. Whenever you found signet ring carcinoma you looked primarily to the colon or to the stomach to find the primary, because that's where it normally comes from, or sometimes the breast or sometimes the pancreas or certain other organs.

It almost never starts there. It is incredibly rare. It's now known that signet ring cancer can start in the lung, but it is incredibly rare. There are only a few hundred cases of it a year in the United States. It's much more rare than say male breast cancer. It is an extraordinarily rare disease. The likelihood of it -- when one finds signet rings, the likelihood that the cancer started in the lung is almost zero.

What were found were signet rings, and everyone agrees on that. But no one explored the other organs of Mr. Lucier to

find out where the cancer may have started because it didn't make any difference, they were going to give him the same treatment. And now that he's had chemotherapy no one can explore them because he's well.

But these kinds of cells were not identified by his pathologists in Santa Rosa but have been by the expert pathologists by both the plaintiffs and defendants in this case and are not consistent with lung cancer.

Five, and last. Plaintiffs' expert ran a test for lung cancer and it was negative.

Plaintiffs' expert pathologist took some of the cells from the mediastinum that have been preserved and ran a special stain on them, a special test called thyroid transcription factor one, TTF1. In adenocarcinoma of the lung -- a great majority of adenocarcinoma of the lung will test positive for this, a great majority. Cancers from other sites almost never test positive, only the thyroid and the lung.

Plaintiffs' expert tested for it after this case was brought in order -- in an attempt to prove that this case was lung cancer rather than cancer from another organ. The test was negative. The test indicated in all likelihood that this is cancer that started someplace else.

So there we have it. No one has ever found cancer in his lung. His symptoms were inconsistent with it; his recovery has been inconsistent with it; the type of cell was inconsistent with lung cancer; and the test that the plaintiffs themselves ran was inconsistent with lung cancer.

I can tell you that no one knows which organ Mr. Lucier's

cancer came from. And that's very common. There is a term used by doctors "cancer of unknown primary site." Even after autopsy in a large percentage of cancer cases they can't find the primary. Here, there was no effort to find the primary.

Finally, a what if. What if this was lung cancer, which the evidence will show the plaintiffs can't possibly prove. If this was lung cancer, signet ring lung cancer in the -- signet ring adenocarcinoma of the lung has no relationship to smoking whatsoever. If signet ring cancer starts in the lung, it's found to be just as common in non-smokers as smokers. It's not like small cell or squamous cell which are much more common in smokers. It's a kind that happens as much in smokers and non-smokers. There is no relationship between Mr. Lucier's

illness, whatever it is, and his smoking.

So here we have a man who has smoked all his life with warnings on the pack, who understood the risks involved, saw all the risks involved, decided to smoke nonetheless, took no responsibility for it, got sick. His sickness had nothing to do with smoking and that's the lawsuit before you.

Mr. Paul told you that this case is about a number of things. Above all he kept telling you this case is about personal responsibility. And on that I'll leave the last word with Mr. Lucier.

Can we have clip eight.

(Videotape played.)

MR. GROSSMAN: I look forward to presenting this case to you. I think it's going to be very enjoyable. And I look forward to arguing at the end of this case what the evidence

has shown and to showing that we have kept the promises made here today.

Thank you very much.

THE COURT: We'll take a ten-minute recess now. Please don't discuss the case.

(Recess.)

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PAGE 2699 WAS BLOCK NUMBERED FOR TRANSCRIPTION PURPOSES.

(NOTHING OMITTED.)

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FRIDAY, NOVEMBER 8, 2002
(Morning Session Continued)
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THE COURT: Okay, ready?
Bring the jury in, please.
THE COURT: You folks can be seated; we're missing a couple.
(The jurors are brought in at 11:15 am.)
THE COURT: Okay, Mr. Barren.
MR. BARRON: Thank you, your Honor.
---o0o---
MR. BARRON: Good morning, everyone.
(All say "good morning".)
MR. BARRON: And good morning to your Honor, and staff. And good morning to counsel for Co-Defendants R.J. Reynolds.
And good morning to opposing counsel, Mr. Paul.
MR. PAUL: Good morning, Mr. Barron.
How are you?
MR. BARRON: And good morning to the rest of you.
Not quite as many as there were yesterday. I think we've even lost the cameras, which is okay with me. And here I am, just rushing towards the lunch hour. And we don't talk to you and you talk to us, and we don't talk to you.
And I overheard someone say it's really hot in here, right before the lunch hour. And I appreciate your indulgence to try to summarize a few things to you about the case as I see it.
Before I do that, I want to introduce myself to you again. I'm Jerry Barron; I represent one of the defendants, Philip Morris Incorporated.
Also, I have co-counsel, my partner, Miss Fey, who represents Philip Morris, and occasionally you'll see some people assisting. I had a young lawyer helping here for awhile, her name is Sarah Gates.
Is she here?
There she is.
And there are others in here, and you'll see a young lady, Consuelo Gutierrez. She's an analyst, and sometimes you'll see her helping, with documents and such things.
And speaking of Miss Fey, there have been some questions asked of me, not, of course by jurors, which have led to some suggestions that you end any further guessing or speculation: Yes, Miss Fey and her husband are expecting a child.
The reason I say this is, she's expecting -- They are expecting the first part of February.

She has been on this case a long time, long time before she became pregnant. She wishes to remain on the case for the trial. She has spoken to her doctor and her husband, and they say that's fine. And I'm happy to have her, if that's fine, with one proviso: The deadline for her leaving, by her husband and doctor, is December 13th. Whether we finish that day or not, that's the Friday before our last day, December 20, you'll remember. But we hope

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that we have concluded, and, if not, she'll just be departing.

She'll have a roll to play in the case. She'll be dealing with the witnesses, which she'll actually put on, assuming we get it done in time, the key scientist witness from Philip Morris, who will explain some things that I will talk about later this morning.

So with that introduction, I guess the question is: Where do we go from here? What is this case about? And you've heard a lot about it already. And, of course, I am going to do my very best to avoid repeating anything.

And I thank you, Mr. Grossman, for doing such a fine job of explaining things.

And so you will see that there will be whole areas that I will not address at all, because there isn't any need to try to duplicate it.

But, when you look at a case like this, I guess -- It's worthwhile, maybe in the beginning -- And throughout the case and the end -- To ask yourself, what are the essential questions? What are the essential issues?

And you've heard a lot of issues discussed, and, of course, some of them are essential. I'm not indicating that they're not.

But how do you put this together? And I would say that the most essential issue in the end, what Mr. Grossman, I think, mentioned at the end of his presentation, which is: Why is it -- What will be the evidence that supports this, that Mr. Lucier, one out of literally 100-million-plus

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smokers in the last 50 years in the United States, feels that he has a personal case and can step forward and seek what counsel says is a substantial amount of money for his decision to choose to smoke for 30-plus years?

The central question is: Is this individual smoker entitled to substantial amounts of money for that decision, that choice? And that is the heart of the case.

So how is he trying to do that? He's trying to do that through complaints -- Sort of a sophisticated lawyer's word for what? You know, complaints, allegations.

He is trying to convince you, through some legal rules, that his Honor will describe at the end, which you'll decide the facts on -- He's trying to convince you that he is entitled to an award of money -- Because he has demonstrated through the evidence each element -- And there are many elements -- That in essence are like the planks of a bridge, that allow him to go from where he is now, like so many other American smokers, to somehow cross over to the point through these planks of a bridge, to the point where he comes out of those 100-million-plus and gets what counsel says is a substantial amount. And someday he'll tell you what that is, of course, that he's seeking.

But again, Mr. Lucier's case is called a personal-injury case. That -- I'll describe it, as you open up the law books -- It is obviously personal to him. And so what

is he saying as to why he, this single person, should be entitled to that?

Here is what he's really saying, not in fancy legal

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words. And we'll get to a lot, and you'll hear some long instruction on the issues. But -- In as common-sense set of words I can use, that I think is fair, let's see what it is that he's actually saying.

What he's saying is, is that I'm entitled to this substantial amount of money, because, number one, I have cancer.

You did not hear Mr. Grossman dispute that, nor will you hear I dispute that.

But he says something next: I'm entitled to the substantial amount of money because I claim -- I claim that my cancer is lung cancer.

And you heard Mr. Grossman spend some time with you just a few moments ago explaining what the evidence showed about that issue and that claim. And I will not go into that.

But he said something else. He says, third, my lung cancer that I'm claiming I have is caused by smoking.

Another way to put it is: It's caused by smoking. And you'll hear this word "cause" used a lot throughout the trial.

And his Honor will define it, I think, maybe at the end of the case.

But he says more. He says: Because it's from my smoking -- And I was smoking for 30 years, 30-plus years, he says -- Can you see this? I'm sorry, I didn't ask.

A JUROR: It's okay.

MR. BARRON: That doesn't look like something that

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separates him out from 100 million people who smoke, who if they ever got a smoking disease that they thought was a smoking disease, to step forward.

So he says something else. He says this. He says: Because -- I claim, or I'm entitled to substantial money because I was made to smoke -- I was caused to smoke by what?

Not just that it was available, because at one point it was a brand that R.J. Reynolds had that he smoked; not just because later it was a brand that Philip Morris had available, Marlboros and then Merit.

What he says is, is that because -- I was made to smoke because of fault, or because there was something defective with the cigarette.

And see, it's the fault of the defendant, he's saying, in trying to build the planks of this bridge, it's something they didn't do that they were supposed to do, something that they did that they shouldn't have done. There was something defective about the product, not just that it's a cigarette. There's something defective about it.

Now, I know we've discussed this, but it's important.

Whether you like tobacco companies or whether you like particular ones or not, be it R.J. Reynolds or Philip Morris, is not the issue of the case.

Whether you like to smoke or don't like to smoke is not an issue in the case.

Whether you think that there should be more

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government regulation or less government regulation

controlling smoking is not an issue in the case.
You must actually ultimately ask yourself: The issue is, we're here to determine in essence: Was this chain of events something that entitled -- Because each one of the planks is shown -- This individual smoker to be awarded substantial amounts of money
Well, let's ask ourselves: Why did Mr. Lucier smoke? But before we do that, it's worthwhile to ask the question, why does anyone smoke? Why do people smoke?
And, you know something, even today with all of in information available, and this information coming from the Center for Disease Control that tracks smoking because it wants to track health issues, we know that today and in other days, 1200 or so Americans will begin to smoke who haven't smoked. Why do they do that if there are any potential health consequences?
A significant reason is nicotine. And you may be saying, "My God, he's saying that? He's using the 'N' word?"
I am. I am.
Let's explore what I think is the often misunderstood compound called nicotine. Let's try to demystify the 'N' word if we can. Okay?
In order to do that, we need to go back a little bit to some basics about cigarette, when it is lit and smoked and, then is made. And I don't want to spend a lot of time on it now because I will come back to it. But, when one

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takes tobacco, which is a vegetable matter, and you put it in paper and you light it, you create smoke.
And you do so -- There's a fancy word for it when you burn it; it's called pyrolysis, P-Y-R-O-L- -- Can't do it right off the head; I'll have to write it out -- -S-I-S -- I'll get it for you. I don't want to take the time.
And what happens is that in the smoke is a gas component, sometimes called a gas phase, and the gas phase really is what's called oxidizing gases.
There is also what's called a solid part of the smoke or solid phase, and that's called by scientists -- Got to use the fancy word -- Particulates.
Thank you, appreciate it.
Gases and particulates. Otherwise known as solid. These are the oxidizing gasses.
Well, what's particulates? What's solid?
Scientists think of it in kind of three broad categories. First of all, water. Good old H2O.
Next is what's called tar. You've heard some description about that.
And tar is kind of a global term for a lot of the chemical compounds that are solids.
But something else is also there; it's called alkaloids.
And that is another way of saying the 'N' word, nicotine.
Now, let me demystify this, if I can for you. And

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scientists have known this for a long time.
Nicotine does not carry the health consequences of the magnitude that the tars do or other things do, so we think. No one knows for sure exactly -- Mr. Grossman said it's the cause of cancer, but people think that it's the compound in the tar.

No one's indicting, even the plaintiff's expert, nicotine as causing lung cancer or emphysema in the sense of the chemical compound doing something to the tissue.

So, what does nicotine do? It's found in other products, but it's found in tobacco and in greater quantities, Mr. Grossman said.

If people smoke partly for nicotine, why are they doing that? There are a lots of reasons, and this actually comes from plaintiff's expert that may even be his first expert.

What we learn is the following:

There -- There are all sorts of things that happen to chemicals. When we eat, of course, food is broken down into chemicals. We're all just chemicals, if you think about it. We're all part of the universe; we're all part of the stars. But what happens is, nicotine will release some things, Dopamine and noranephromine, and what happens is, that, one, the Dopamine gives people a sense of pleasure, brightness. If you want to -- I don't want to try to be a -- That's what it is, it's hard to describe if you talk to people who smoke.

The noranephromine, we know, scientifically, lowers

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appetite, suppresses appetite, and therefore smokers have lower weight. Not just because if they stop smoking they gain weight and if they go back to smoking they lose it. In fact, it's lower to begin with.

In addition, there is something called -- I don't need to write this. I'll do it later to save time.

Now, acetylcholine, A-C-E-T-Y-L-C-H-O-L-I-N-E, for those who are taking notes, and I'll try to do it again, later on in the case. It is known that this helps with memory. So when people say, you know, I kind of study better if I have a cigarette, well, you now know it is related to acetylcholine.

What else? We know that it enhances certain behavioral tasks. And it's not just because of memory. There's something else called B -- Capital B endorphin, that's E-N-D-O-R-P-H-I-N. We know that it reduces anxiety. And tension.

So when people say sometimes I have a smoke when I'm getting tense, now you know the fancy chemical word for why that's happening.

We know that it has increased vigilance. We also know that it apparently assists in moderating depression.

Now, don't get me wrong; I'm not saying that everyone who smokes is depressed and that if you smoke you'll not get depressed. But, in fact, it has been perceived to have that benefit for some if they do smoke.

There are other things that it does that we can get into in more detail. But what it doesn't do is, it doesn't

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cause lung cancer. And if Mr. Lucier had lung cancer, it wasn't because the nicotine somehow changed the cells of his body that Mr. Grossman spoke about.

Is that the only reason people smoke? Because of the nicotine? It's kind of like asking, is that the only reason people drink coffee, the only reason, because it has caffeine?

No. Actually, we know that there are a lot of other reasons why, additional reasons, why people smoke. Some people, there have been studies show, feel that they like having something in their hands.

Some people smoke, study shows, because of rebellion. Some people do it intentionally saying, I want to show you that I'm rebelling against what other people tell me I shouldn't do that's risky. Because I am going to go ahead and do it because I enjoy it.

What about Mr. Lucier? Is he anything like what I just described? People feel -- feel a benefit from either nicotine or other factors.

In his deposition -- And I won't take time to play video -- He says that he enjoyed smoking, he always enjoyed smoking, and what he enjoyed was taste, feel of cigarettes in fingers, pain and suffering, during reflective times when anxious as means of coping with anxiety, the camaraderie of smoking, et cetera.

Now, I said taste. Some people have tried cigarettes that don't continue smoking, go, "Yuck, didn't taste good to me."

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What's he talking about?

Well, if you're not a smoker, it's hard to describe, but if you study the smokers, smokers can tell the difference between different cigarettes. Some taste okay; some don't.

And the reason is that it has to do with the mix of the tobaccos, which we'll get to in a minute because there are different types of tobaccos, there's Oriental, there's Burley, there's Bright.

Well, but am I downplaying that we know that there is a risk? There's a health consequence to this? Of course not.

Many people, especially public health officials and scientists, will say that they think it's an unwise choice for people to make, to smoke.

But the evidence is going to be that people are allowed and free to make what some others think are unwise choices. They make lifestyle choices all the time that seem unwise for others. And I think if we stop for a moment, we can all think of examples.

Does anyone, any part of the population, not know that we are advised by health officious that it's unwise to go out in the sun, either sunbathing or just spending a great deal of time out there without sun block? Yet we can still go to beaches and see people who not only don't have sun block, but some people are still putting things on to magnify it, like baby oil or whatever. That is their choice. Or to hike without it.

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So what do we do when we have something that gives some people some pleasure, than -- from which some say they find benefits, either in alertness, vigilance, relief of anxiety, relaxing, whatever it is, and when we know that there is a recognized risk of health consequences?

We don't just let people smoke without some controls.

We control how cigarettes are advertised. And we do that on a national basis through the Federal Trade Commission. And it's been that way for a long, long time. And it's for that reason, for example, that you don't see the commercials for cigarettes any longer. And you haven't since 1972.

We control who can buy cigarettes. And states can set the age limit, and they do. And they tend to be 18 years old. Some have had it historically less, but a while ago. Some have the right to have it more. If we want to in

California we could have it at age 45, if we wanted to. There's no constitution constitutional law to have it be 18 or 19, or whatever.

We control where cigarettes are smoked. Don't we? In fact, we do it quite vigorously in California. And so we also control, most importantly, the fact that people are warned. And we control how they're warned on a national federal basis. And Mr. Grossman went into that, but we did it for the first time, as we learned, starting in January 1, 1966. That's when the first warning went on all the cigarettes from all the Unites States manufacturers. And we do -- And I agree with Mr. Grossman -- Control in a much

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more aggressive, vigorous, way with all these other elements, than they do in the other parts of the world. So we know, going to the time line that specifically relates to Marlboro --

MR. PAUL: That's okay, you can leave it there; that's fine.

MR. BARRON: Marlboro is made by Philip Morris.

We know that before Mr. Lucier smoked Marlboro cigarettes, the warning was on it. In fact, it was on it for some months. And so when he came to smoke Philip Morris's product, Marlboro, he smoked with that warning right on there.

Now, can you see? I'll move it.

MR. PAUL: No, that's fine. That's fine.

MR. BARRON: All right. So -- So what is the evidence about Mr. Lucier when he came in mid-1966 to Marlboro made by Philip Morris? Well, you heard a lot presented, I thought, very well by Mr. Grossman about all the information that Mr. Lucier had. But I would just like to give you an example that wasn't played. I'm glad there was something left for me to do, because I was going like this on my outline as Mr. Grossman was speaking.

Can we have those clips of what Mr. Lucier said about -- Oh, let me just say, this is -- Let me set this up:

This is in 1963; he's 13 years old. Remember now, he's moved to St. Louis, Missouri. Remember that -- The evidence will show that the -- He had his brothers and

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sisters. His father was an officer of a large corporation. His mother was well educated. She was actually a pilot. He's living in this household. He's 13 years old. It's 1963, and here's what happens with one of his parents.

Would you play the clip.

(The video clip is played at 11:47 am.)

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MR. BARRON: Could you hold for just a sec? Those were all questions that were asked by his own lawyer. That was plaintiff's counsel, one of the plaintiff's counsel.

Okay, thanks. The next one?

(A video clip was played at 11:49 am.)

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MR. BARRON: So you've heard about -- Bring it up into context -- You've heard about that he was 14 years old. He entered a private catholic school. It's important that you will hear about what those schools taught about the dangers of smoking.

We heard that, in his freshman year of high school, remember, he thought about being a priest. So in his sophomore year he went into the seminary, and you heard

already the rules about smoking policy there.
When he was deciding whether to smoke again, remember after not smoking for that period of seven months, when he was making that decision in 1966, this young man was not a naive, underprivileged, confused person about things. He was already soloing a plane. He went on very soon thereafter to get his private pilot's license.

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So, it's -- Is it odd that only he might know all those things from all those sources? We spent a lot of time that was well spent already, I think, talking about what people knew. But just let me give you a couple of examples.
I think it was mentioned that there was this 1959 senior class particular poll, where 97 percent of the students said that they believed that there may be a connection between smoking and lung cancer.
I mention the catholic schools. Mr. Lucier has testified, in his deposition under oath, that he has no recollection of his schools in St. Louis taking a position against smoking.
Yet, it turns out, when you go back and you look at the newspapers from St. Louis, there it is, a lead article describing, in 1960, a quote, "Widespread campaign to inform high school students about the suspected relationship between cigarette smoking and lung cancer." It has begun in Missouri, it was announced.
In St. Louis both the Reverend James Curtin, superintendent of St. Louis Catholic Schools, and L.J. Dierker, Superintendent of Missouri Lutheran Schools, made the announcement.
You heard about the Surgeon General's report. But you know? What was interesting, was not only the report, but the reaction to it. And Mr. Grossman mentioned some of it. It included, though, just to make sure, the American Medical Association saying that "we do not think it's necessary to put a warning after the Surgeon General's

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report" -- Not necessarily what they wound up doing in 1966, a couple years later -- "Because," they said, "the health hazards of excessive smoking have been well publicized for more than ten years and are common knowledge. And labeling", meaning warnings, "will not alert even the young cigarette smoker to any risks of which he is not already aware."
Again, that was the American Medical Association.
What about the Unites States Clearinghouse on Cancer and Smoking? The head of it said -- Pretty graphic: "You can stand on a rooftop and shout 'smoking is dangerous' at the top of your lungs, and you would not be telling anyone anything they did not already know."
Now, it was on January 1, 1966, like every other United States tobacco company, that Philip Morris put on its cigarettes the warning, including on Marlboro. And I would say, what is the issue? What is not to understand? For goodness sake, about a warning that says, smoking may be hazardous to health?
Counsel in another setting said, you know, the word "is". Remember, we poked fun at a present who said, "How do you define 'is'? And we got to know what 'is' is.
Later on, there may be evidence that those words would change from "may" to "is", but, for goodness sake. When you go to the beach and one looks at a sign that says, "caution", or "warning, beach may have riptides", it doesn't

say all the time; it doesn't say everybody's going to drown that goes swimming.

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But I say again, what is there not to understand about the warning of 1966, especially for a young man with this fellow's background and his state of awareness, as mentioned earlier by Mr. Grossman and, hopefully, amplified a little bit by what I've said.

Your Honor, this would be good time to break.

THE COURT: Okay, have a nice lunch. We'll be in recess until 1:30. Please don't discuss the case.

1:30.

(The noon recess was taken at 11:59 am.)

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FRIDAY, NOVEMBER 8, 2002

(Afternoon Session)

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The matter of LAURENCE LUCIER and LAURIE LUCIER, et al, Plaintiffs, versus PHILIP MORRIS INCORPORATED, et al., Defendants, Case No. 02AS01909, was continued regularly this day before the Honorable Steven H. Rodda, Judge of the Superior Court of the State of California, for the County of Sacramento, Department 44/1 at 1:30 o'clock p.m.

The Plaintiffs, LAURENCE LUCIER and LAURIE LUCIER, were represented by: GARY M. PAUL, Attorney at Law; MARY ALEXANDER, Attorney at Law (not present); and ROBERT M. BROWN, Attorney at Law (not present).

The Defendant PHILIP MORRIS INCORPORATED was represented by: GERALD V. BARRON, Attorney at Law; LAURA C. FEY, Attorney at Law; STEPHANIE A. SCHRANDT, Attorney at Law (not present); DEBORAH A. SMITH, Attorney at Law (not present); and ANNIE Y.S. CHUANG, Attorney at Law (not present).

The Defendant R.J. REYNOLDS TOBACCO COMPANY was represented by: THEODORE M. GROSSMAN, Attorney at Law; HAROLD K. GORDON, Attorney at Law; ELIZABETH P. KESSLER, Attorney at Law; DANIEL J. McLOON, Attorney at Law (not present), and STEVEN N. GEISE, Attorney at Law (not present).

The following proceedings were then had:

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THE COURT: Okay, ready for jury, are we?

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MR. GROSSMAN: Yes, your Honor.

MR. BARRON: Yes, your Honor.

MR. PAUL: Yes, your Honor.
THE COURT: Okay, bring them in, please.
(The jurors, brought in at 132 p.m.)
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THE COURT: Good afternoon.
(All say "good afternoon".)
THE COURT: Ready, are we?
MR. BARRON: Yes.
THE COURT: Okay. Mr. Barron.
MR. BARRON: Welcome back.
And thanks again. I know it was a long day yesterday, and it's been a long morning this morning. And all counsel know how difficult it is to listen for a great length of time.
We had just, I think, finished dealing with one of the ways in which a claim is being made in kind of common language here, in terms of: I was made to smoke, caused to smoke, by defendants' fault. And that would be in essence Mr. Lucier saying, "Sure, I chose to smoke for those 30-plus years. But that's your fault, for example, Philip Morris, because you didn't adequately warn me." Adequately warn. That's what we just talked about.
So I'll just put down here, a subset, "adequate warning". He says no adequate warning.
In essence, Mr. Lucier is also claiming that, "Well, sure, I chose to smoke for 30-plus years, but that's, again,
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not entirely my responsibility. That's the responsibility of you, Philip Morris, because it's your fault, because you made some statements. And I say they're false, and I say I relied on them."
False statements are in effect the law's words. You know, liar was the word that counsel used. But that's in essence the other way of approaching it.
So it's -- Just so we're now going to talk about briefly -- He's saying false statements -- Oops, of fact.
"So I was made to smoke by your fault because I was made to smoke by your false statements of fact that I relied on.".
Now, let's investigate that. Now, plaintiff will, in their case, I suspect, as in the opening, often and relentlessly -- Groups of documents. And they will try to say that, you know, this document is a false statement. This is a false statement. This part of this document is a false statement.
So we need to talk a little bit about documents. I suggest the following to you:
First, sometimes the selected, the extracted, highlighted, the pulled-out portion of the document may not accurately reflect what really is the purpose or intent or statement of the document as a whole and get a chance to look at it. And let me just, if I could, take a moment and just give you one example of that.
That's why I'm at the podium, because I've got these, and these are the full documents in essence of what we
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talked about yesterday.
But I'm not going to go through all of this. You would toss me out, I'm sure.
Let me go through one.
Thank you.
This was Exhibit 245 -- Oh, I've got to do the unfreeze. There we go.

Don't watch; you'll get dizzy probably. It's 245.
And here were the statements that were extracted on the right, you remember: "Whether or not cigarette smoking is a cause of lung cancer is a matter of definition."
That's where we had the fun with what is the "is" word saying?
"And then add to this possibility the normal reluctance of the average human to change his habits; the conclusion is then quite apparent that the cigarette business will continue for a long, long time." Referencing, obviously, nicotine concept there.
And as you saw yesterday, what I've tried to do is replace those pulled-out, extracted clipped portions and colored them in what's kind of highlighted pink here, but turns purple by the machine -- And show you there's a lot more that relates to that.
Um, pretty difficult to see from where you are. Let me just go through it very quickly for you. I know it's labor-intensive, but it needs to be done at least once, in my opinion.

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This is the entire statement, you know, the "what it is" argument. "Whether or not cigarette smoking is a cause of lung cancer is a matter of definition."
Probably if you go to a dictionary, you'll find multiple definitions above it or not. But here's what they go on to say.
"Epidemiologists, medical statisticians, define a cause as any factor, the removal or absence of which eliminates the disease, irrespective of any intermediary" -- Excuse me -- "Any intermediate steps involved. Researchers now, I believe, generally agree that lung cancer is an end stage of a series of sequential changes."
Goes on.
Is there anything wrong with trying to discuss what you mean in that way?
Let's go look at the second part of the statement. And there's more. It talks about, incidentally, in the second paragraph:
"Cancer-producing, in mice, chemicals are now found in city air, often in concentrations higher than that found in cigarette smoke. These chemicals come largely from the road tar, rubber tires -- Rubber tires and incompletely burned petroleum fuels."
Skipping down a line, just to try to get to the conclusion of this:

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"In view of these facts, and in view of the failure of researchers to establish a definite link between smoking and lung cancer, many cancer students are seriously doubting the hypothesis that cigarettes should be blamed as a, quote, 'cause'."
So here we have someone struggling with definitions, state of the scientific methods. It's not merely just a clip. Let's go to the second part, the clip about staying in business. The last paragraph.
"The complexity of the problem is such that, even if further evidence for a relation between cigarette smoking

and lung cancer is uncovered, the answer will be neither conclusive nor simple."

And the ellipsed portion, continuing with the yellow:

"This is not to belittle the influence of Readers' Digest or pronouncements by the American Cancer Association."

I repeat: It's not to belittle them. That is what this statement said. These agencies have already demonstrated their effectiveness to educate the American public.

That is, at least -- Without reading the whole document -- That I think gives you an idea of the context -- That all can be done with the document.

Now, sometimes the accuracy of an intent or purpose of a document or its effect can only be fairly evaluated, can it not, when you look at other documents that are associated with it.

2724

Sample number two: There was -- Oh, you can take that down now. I'm sorry.

Example number two: There was reference to a memo from someone named Dunn to someone named Levy, and it related to a person of Philip Morris and her work. Her name was Caroline Levy, and there was emphasis on the highly charged word, quote, "We will bury it," or something of that kind. Wasn't "bury". It was a study that was going to be done, again, of nicotine and involved with animals.

The fact of the matter is that we have the results of that work. We have it in her lab book. And it will be and available for you to see at the conclusion of the case.

These are the documents that put that in perspective.

Whatever Dunn was thinking or not thinking, it has to be evaluated by what others thought, because one person does not a company make. And the work was done, and the lab books were available. And we'll talk about that in detail.

Example number three: Sometimes plaintiff's counsel may suggest or imply a purpose that, again, it's clipped or extracted from a document, and we will frankly have disagreement with it. And that's what you as jurors will have to evaluate it: What is the more likely correct implication of something?

Let me give you an example, Exhibit No. 4.

Again, interestingly, it's from someone named Dunn.

The only portion that was talked about was this portion about, remember, a dose unit of nicotine. Think of a cigarette as a package.

2725

You know, when I was listening to that, I -- I was listening to that, I have to say wait a minute. Isn't a coffee cup a dose unit of caffeine?

Here is something that he also said: To put this in perspective, what he was talking about, see if I can do this without -- Oops -- Found on page three of the document:

"Lest anyone be made unduly apprehensive about this drug-like -- Drug-like conceptualization of the cigarette, let me hasten to point out that there are many other vehicles of sought-after agents which dispense in dose units."

Wine is the vehicle and dispenser of alcohol.

Tea and coffee are the vehicles and dispensers of caffeine.

Matches dispense dose units of heat. And money is the storage container, vehicle and dose dispenser of many things.

Now, if we had a sinister type of thing in mind, when we wrote the first part of what nicotine is in a package of cigarettes or a particular cigarette, one would think that this would be the kind of thing that one would keep very secret, wouldn't one?

But the fact is that this was a conference attended by enormous number of people, the evidence will show. We'll produce it for you.

And he published these concepts, at the time. He published concepts of what he thought nicotine was in a cigarette. And we talked about that.

2726

Okay. Sometimes -- Another point of the documents is, that they will appear, but yet they will be difficult to really accurately evaluate unless you have some background and understanding of the timeframe in which they were written.

The times that formed their background, the state of knowledge, the state of science.

It's easy to Monday-morning quarterback; we're all so smart now in talking about what people did or didn't do 30, 40 or 50 years ago. But we forget. And we'll try to do that.

And I thought actually we've done quite well by my co-counsel, co-defense counsel here, when he talked about things that were known around the time of the "Frank Statement" and why people might not have been so sure when they printed the statement they did. And that was exhibit No. 19, the "Frank Statement".

Now, even if you look at a document, and one feels that the statements or intent or purpose is crystal clear, and one can have no real significant reservation or doubt about it, when you're dealing with a document of a company, there are a couple things that one, I think the evidence will show, needs to ask:

Does the statement reflect the person's opinion or the company's opinion?

Does the author have the authority to make the policy, to offer the opinion and make its conduct, for goodness sakes?

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Now, we're talking about a corporation. In other words, sometimes, you know, we worry -- The dreaded 'C' word, another dreaded word, 'C' word, corporation.

What is a corporation? We all know that sometimes we have to pinch ourselves and remember: A corporation, yes, is a person in the eyes of the law, the evidence will show. A corporation is a legal entity. Yes, a corporation has files, articles of incorporation, in certain states.

Yes, a corporation has bylaws setting forth how the corporation should operate and what its purpose is going to be.

But formed by whom? And maintained by whom? Ultimately, the evidence will show, we all know this; a corporation is owned by people. We call them shareholders. But that's what they are. They're people; they're individuals sometimes. Sometimes they're mutual funds. They're groupings of people sometimes. But that's what a corporation is.

Is it important? I am going to show you why it's important.

The evidence will show that one way to look at it, in my view, is to say, here you have owners -- Shareholders,

people or groups of people.
But when you have lots of people making a big group of people, therefore a big company, you can't have everybody participate in every decision. So what do you have? The evidence we know is; you have people elected who are boards of directors, don't you? They're a smaller group.

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But the board of directors don't actively run a corporation on a day-to-day basis. What do they do?
They decide who are going to be the officers, don't they? The evidence will show they pick -- Different words are used -- A C.E.O., chief executive officer or a president.
And then what happens? You got a big group of people in a big company; you don't have one guy do it all. He doesn't make the policy, type the letters, distribute the product. He's got to hire people. So he hires people to be with him as officers. They in turn hire people. They form groups and divisions. They in turn hire people, and we have staff and people --
MR. PAUL: Your Honor, I'm not sure --
THE COURT: Approach the bench, please.
Please don't overhear our conversation.
Do you want to join us, Mr. Grossman, or not?
(Mr. Grossman approaches the bench.)
(At Bench)
MR. PAUL: With all due respect, we're now almost six hours into the defense's opening statements. This is --
MR. BARRON: This is critical.
MR. PAUL: Excuse me just a second.
I've had a witness, as everybody has known, ready to go here since 9:00 o'clock this morning.
THE COURT: How much more do you have?
MR. BARRON: I can finish in half an hour; I'll try to rush through it.

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MR. PAUL: But I got to say, going through an explanation of a board of directors --
THE COURT: You got to, you're --
MR. BARRON: I'm going to relate to a document and move on.
THE COURT: All right.
(Back out in open court at 1:55 pm.)
---o0o---
MR. BARRON: Okay. Why do I say this? Because there are going to be occasions when people may say things that do not speak for the company, and it can go up to the highest levels. And that's why I bring it up.
Evidence was mentioned about a statement in 1998 by the then president, C.E.O. of Philip Morris -- Even emphasis was placed on his name, I think, for obvious reasons. His name was Mr. Bible, you'll remember. And a statement was read by him, about if he thought such and such, he would close the doors or shut it down tomorrow.
You know something? The evidence will be that he doesn't have the authority to do that. He doesn't have the authority to do that.
Why? It's not his company. It's owned by people who then have the board of directors acting for them, and he doesn't have the power to close it down.
Nor would the evidence be that should be, because it's a legal activity. And he can't unilaterally close it down and have other companies in the United States continue

to manufacture and have his owners and shareholders go
2730
under. He couldn't even get all the U.S. tobacco companies together and all the C.E.O.'s -- All of them together and shut it down. Forget the shareholders?
What about companies in other parts of the world? What about countries who manufacture cigarettes?
So, it can go to the highest level that persons don't have the authority to make the decision that someone may think that they are talking about in the document.
All right. What about documents for Philip Morris? The evidence will be, from Mr. Lucier's own words, that he can't point to any wrongful documents under the law that he specifically saw and relied on.
What he says is: I saw advertisements. I heard advertising.
Well, the one thing about that is, first of all, it's pretty clear from the evidence -- And we've heard a lot about it -- We're going to hear a lot more, and you may even hear the jingle and all that, from their part of the case.
The fact of the matter is that the Marlboro man in the TV commercial did not start Mr. Lucier smoking.
And he didn't start smoking until January of 1966. And, besides, what does the Marlboro -- What is the Marlboro statement? Is there evidence that the Marlboro statement is a statement of fact? That is false?
"Come to where the flavor is." A lot of people find flavor in Marlboros.
Is that a false statement?
2731
"Come to Marlboro country."
Where's the false statement there?
Now, we move to the third and kind of last general area, which has to do with defective cigarettes, and -- Plus, I smoked defective cigarettes was what he was saying. And that's this: (Counsel writing on the chart)
I am going to go through this faster than I intended because I do want to keep this short so we can get on to something. I've been encouraged to keep it shorter by the situation.
So let me see if I can do this and still, yet hopefully, have you close -- Have a chance to understand what I'm saying about the evidence.
You heard about what R.J. Reynolds did up to 1966.
I can assure you there will be evidence of similar activities by Philip Morris before, if we need to do that, and certainly after 1966, dealing with its products, Marlboro, Merit and others.
What will that evidence be? It will be that we also reduced generally the amount of tar in the same general way, some of the same general ways that you heard about.
We also went after things that were suspected of being those particles. Remember in the tar part, the solids that were suspected of maybe being a problem, and tried to eliminate them selectively?
You will hear evidence of how difficult that is, because, not only are they so small and so few, but also when you do something to get rid of one, you change the
2732
chemical mix up. And it's amazing, when you fool with nature, you change one thing, and then that -- The particles reform, and sometimes what they reform to, as

being as a chemical compound, it has some potential problem also. Or at least it's thought to be.

So it's very hard to isolate and selectively take out one and isolate and selectively take out others, because we're dealing with what you've heard. There are about 4000 4500, 4800 chemicals when you smoke, and they do change, even in the smoke itself as they're released.

Did we make a good-faith effort, and did we accomplish something? I think the evidence will show that we did.

Very quickly. First of all, involving the tar issue, there have been efforts to lower tars that have been successful.

And guess what? One of the lowerings was with Merits.

Now, one of the advances for Merit was: When you lower tar, tar is also what gives taste. It's kind of like saying when you take out a lot of marbling in beef, you can reduce the risk that people are going to have cholesterol buildup and heart attacks. And people, say, you know, but it doesn't taste quite as good as when I was able to go and get a Kansas City steak with more marbling.

So what we tried to do is take out a lot of tar and lower it and also give it taste. And so with Merit, over a 10- or 12-year period, what incurred was, we invented some

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technology, just like Reynolds invented technology.

What we did was we went to gas chromatography, where we're sitting there with light, and just like we look in space to try to figure out what's going on by the color spectrums that we get, we were looking at smoke to try to figure out what was there and try to find out what was flavorful, so that we could keep the flavor full and take out the ones that weren't flavorful that might be a problem or reinsert something and give it more flavor -- And, lo and behold, came up with the Merit.

We advertised it as a taste, and low tar, and we think both were factually true. It was low tar, and it was tasteful. And people who had tried low tar, be it Carlton or Vangtage or some of these others and didn't like it, they found that they tried Merits, and they did like it.

And it turned out that Mr. Lucier, in 1976, went to smoke Merits, and interesting --

Mr. Paul, do you still have that photograph of the ranch --

MR. PAUL: I don't have it with me today.

MR. BARREN: It's in evidence. We'll have it, I'm sure.

If you look at the photograph, the date of the photograph itself was May of 1976. And that's the time when Mr. Lucier began to smoke Merits, when he was being the cowboy. He stuck with Merit for, what, 20-years, plus, from '76 all the way to '99. He wasn't interested in anything else because he liked the taste. We came up with lower tar

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ones, trying to maintain the taste. That was the Ultima, and then one even more -- Lower than that.

But that's what we did. That's the kind of thing. You know, and there were other efforts.

How about nicotine? Interesting story here.

For those that had a problem with it, what we did was, we said, okay, maybe there's a way to take it out. Struggled with it. Finally found out there's a method --

There actually was a method that came up with -- Through General Foods' effort, General Foods doing what, decaffeinating coffee, very similar. Efforts were made to go the Germany. Some of the best -- Germany has high technology -- And went to Germany and worked on the project. People were saying it couldn't be done, taking the technology and bringing it over to tobacco, but that it worked.

The product we made was called Connect. Practically no nicotine. Problem is, that just like there's some people who call decaffeinated coffee like drinking warm, dark water, there are some people that don't like to smoke without the benefits that they see the places that they see nicotine. It just didn't work in the marketplace. But after great efforts and marketing attempts, we did that.

The interesting thing is that you'll find over the years that there have been scientists and doctors who have said, as Mr. Grossman mentioned: Why don't you, instead of lowering the nicotine, raise the nicotine so you can lower the tar, to give people the pleasure of the nicotine, keep

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the tar out that has, we think, the more potential for bad things, like a cancer?

And then other people have come around and said, no, you got it all wrong. Take the nicotine way down and leave the tar way up, but people will stop smoking because they don't get the nicotine over time. So it's kind of like, what do you want us to do?

That's what the evidence is.

In conclusion, first of all, for those who took notes, I did come and spell these things for you, I'll leave them up for you.

In conclusion, when we go, and look at these questions. Especially the last one that I spent all my time on -- 4, which is, 4-A, -B and -C.

I would say that the evidence will show that this is not a case in which the planks of the bridge have been built that separates him from others and moves him across to a situation where an award of money is appropriate.

And as, for example, even the defective cigarette issue, the interesting thing about all that is, anyone, you design something, someone's got to smoke it.

If you build a lower Ultima, Merit and people don't buy it, what are you to do? If -- And also, if you build a product with the filter on it that accomplished the results that Merit accomplished and somebody turns the filter off, how can -- As he says, it is the product that caused the problem, when we changed the product.

I really thank you four your indulgence, it will be

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quite while because I'm at the end of the line for the chance to produce evidence. I thank you for the time for allowing me to proceed, and look forward to presenting my case to you.

Thank you, your Honor.

THE COURT: We'll take ten-minute recess now. Please don't discuss the case.

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(A brief recess was taken at 2:05 pm.)

---o0o---

THE COURT: Ready for jury?

MR. PAUL: Yes, your Honor.

THE COURT: Okay, bring them in.

---o0o---

THE COURT: Okay Mr. Paul, are you ready to call your first witness?

MR. PAUL: Yes, your Honor. Dr. Neil Benowitz, please.

THE CLERK: Could you please raise your right hand.

Do you solemnly swear the testimony that you're about to give in the cause now pending before the Court will be the truth, so help you God?

THE WITNESS: Yes, I do.

THE CLERK: You may be seated up in the witness stand, please.

THE WITNESS: Thank you.

THE CLERK: Please state your full name and spell your full name for the record.

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THE WITNESS: Neal Benowitz.

N-E-A-L B-E-N-O-W-I-T-Z.

THE CLERK: Thank you very much.

TESTIMONY OF

NEAL BENOWITZ, a witness called by the Plaintiffs:

DIRECT EXAMINATION

BY MR. PAUL, Counsel for the Plaintiff:

Q. Dr. Benowitz, how are you today, sir?

A. I'm fine, thank you.

Q. Tell us what you do for a business or occupation.

You have a soft voice, so if you could sort of project for these people back there taking notes, I would appreciate it.

A. Okay. Well, I practice medicine. I work at the San Francisco General Hospital, which is the county hospital for the city of San Francisco.

I am employed by U.C. San Francisco, the University of California, at San Francisco. I'm professor of medicine, psychiatry and biopharmaceutical sciences there.

And I am chief of the division of clinical pharmacology, which is a division of the department of medicine at U.C. San Francisco.

Q. All right. And let's see if we can go through a couple these terms, if we might.

First you say you're a professor. And you're a full professor?

A. Yes.

Q. Okay. How long have you been a full professor?

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A. I've been a full professor since 1985. About -- I'm not -- '85, '87. Somewhere around there.

Q. As a professor, do you have teaching responsibilities there?

A. Yes.

Q. How much of your time is taken up with teaching?

A. I spend about a third of my time in teaching.

Q. And whom do you teach?

A. I teach at several levels. I teach medical students; I teach interns and residents. I teach postdoctoral fellows. And then I do postgraduate teaching.

And I teach different things at each level.

Q. And for how long have you been teaching?

A. Well, I joined the faculty at U.C. San Francisco in 1974. And from that time, to the present time, I have spent a considerable amount of my time teaching medicine and things related to my research area.

Q. Do you have a specific area of research or a specific

interest?
A. Yes. My medical training is internal medicine -- With a special interest in clinical pharmacology and medical toxicology.
My research area has been studying the health effects of cigarette smoking, particularly looking at questions of nicotine, the importance of nicotine in maintaining smoking, aspects of nicotine addicts, and then also questions of the use of nicotine and other medications to help smokers, who would like to quit smoking, quit.

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Q. Okay. And for how long have you had this interest or worked in the field dealing with nicotine?
A. That work began in about 1975.
Q. And we'll get into that in a little bit, but you have published in that area?
A. Yes.
Q. You've taught in that area?
A. Yes.
Q. Okay. Let's talk about a couple of the other terms. You used it a couple times "pharmacology". You say that you're a chief of the division of clinical pharmacology.
First, what is the chief of the division?
And then can you explain to us at some point what pharmacology is.
A. Yes. Well, departments in our medical school are broken up into divisions, so that each of the faculty persons belongs to one division.
For example, cardiology is a division. Or hematology, or cancer.
Clinical pharmacology is also a division. And clinical pharmacology is the study of drugs and teaching about drugs in people.
Pharmacology itself is a term; it's the science of drugs, how drugs act, what they do.
Clinical pharmacology looks at the science of drugs in humans, and it spans from developing new drugs, studying how drugs work in people, trying to develop the best way to use drugs to treat medical diseases.

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Studying drug abuse, studying toxic or injurious effect of drugs, and even studying drug overdose.
In our division, our faculty are involved in various aspects of -- Of drug-related research, and the San Francisco branch of the California Poison Control Center, which is toxicology, is also part of my division.
So a number of the faculty in my division are involved in studying poisonings and drug overdoses.
Q. So when you say you're chief, that means that you basically are the head of that division?
A. Yeah.
Q. For how long have you been chief?
A. That's since 1985.
Q. Okay. You said that you're involved with the department of medicine, biopharmacology, and psychiatry. Is that correct?
A. The second one is biopharmaceutical sciences. It's a long word.
Q. You're absolutely correct. I misread it.
Biopharmaceutical scientist. What does that mean? Is that any different than what we were talking about before?
A. Yes. Our division has got members not only in the

department of medicine but in our school of pharmacy.
The school of pharmacy basically studies drug action involved in developing new drugs, and their department that studies drug action and new drugs is called biopharmaceutical science. In a "pharmaceutical", the

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drugs; "bio" is drugs in people. And science is just the science of studying that. So it's actually a similar term to clinical pharmacology, but it applies to pharmacy.
Q. What is your involvement then in psychiatry?
A. Well, psychiatry comes from my work in addiction, so even though I'm not a psychiatrist, I'm trained in internal medicine and cardiovascular disease.
What I teach about addiction is most -- Is very relevant to what psychiatrists need to learn. And so I teach about addiction to psychiatrists, and --
Some of my research is actually done in association with psychiatrists, in the addiction field.
Q. By the way, is nicotine a drug?
A. Yes.
Q. Is nicotine addictive?
A. Yes.
Q. Let's talk about your educational background.
Why don't you tell us where you went to college, medical school, leading up to your work in your specialty.
A. I went to undergraduate school at Rensselaer Polytechnic Institute in Troy, New York; I studied physics there.
I then went to medical school at University of Rochester in Rochester New York,
I graduated from Rochester in 1969.
I then did internship and residency in internal medicine at the Bronx Municipal Hospital Center in New York, which is the main county hospital in the Bronx.

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Following that, I came to San Francisco, and I did a postdoctoral fellowship in clinical pharmacology, that was from about 1971 to about 1973.
And then I joined a faculty as an instructor first and then assistant professor and lead assistant professor and full professor at the time.
Q. So you're licensed in the State of California as a doctor?
A. Yes.
Q. And that occurred when?
A. 1971? I think?
Q. And are you familiar with the term board certification?
A. Yes.
Q. First, define the term for us, and then tell us whether or not you're board-certified?
A. Well, different medical specialties -- Specialties have a different board, or a board that certify practitioners as being qualified to practice on that board.
Internal medicine is the main board, and that's really for physicians who specialize treating adult disorders of internal organization, heart, lungs, kidneys intestines, anything that's non-surgical.
And that board requires a certain amount of training and then passing a two-day examination.
I also have board certification in clinical pharmacology, which is, as I said, the field that deals with drugs and people. And they have -- They have an

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examination to pass. And there's also a board in medical, toxicology, which is -- Which is sort of a specialty of clinical pharmacology dealing with drug-related injuries. And for that, you have to have a certain amount of training and pass an examination.
So I have boards in those three areas.
Q. Over your career -- I am looking at your C.V. or your curriculum vitae or your resume, right?
A. Yes.
Q. It's about 31 pages long?
A. Yes.
Q. Over your career you've received a number of honors, correct?
A. Yes.
Q. I just want to touch on a couple of them.
The American Society for Clinical Investigation? What is that?
A. Well, that is a -- Society for prominent medical researchers. It's an elected society. That honors people who have made national contributions in the area of medical research.
Q. You are listed as one of the best doctors in America in the field of clinical pharmacology for a number of years?
A. Yes.
Q. Okay. 1996, you were president of the society for Research on Nicotine and Tobacco?
A. Yes.
Q. What's the nature of that organization?
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A. That is a major society in the world for scientists and health-care professionals who are doing research on tobacco-related health problems, and involving treatment of tobacco addiction.
Q. When you say it's worldwide, you were president of a worldwide organization?
A. Yes.
Q. 1996, you were president of the American Society for Clinical Pharmacology and Therapeutics?
A. Yes. That is the worldwide major society for the area of clinical pharmacology, so, again, these are scientists who are involved in studying how drugs work in humans, drug development, drug regulation, drug monitoring.
Q. In 1996, you got the -- If I pronounce it incorrectly, I'm sure you'll correct me -- The Ove Ferno award?
A. Yes.
Q. What is that?
A. The Ove Ferno award is an international award given to a scientist for distinction in research on the human pharmacology and effects of nicotine, basically. So that was work given for my research on nicotine addiction.
Q. And that's a worldwide organization?
A. Well, it's not an organization; it's an award that's given worldwide.
Q. Who gives the award?
A. Well, it's given -- At that time it was given by the International Collegium of Psychopharmacology.
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Now it's actually been taken over by the Society for Research on Nicotine and Tobacco. So they have a committee that awards that award every three years.
Q. 1997, you got the American Thoracic Society

Presidential Commendation?
A. Yes.
Q. First, what does "thoracic" mean?
A. Chest. That's the main society that relates to lung disease, chest diseases, research and practice in that area.
Q. Have you had occasion from time to time to be a lecturer at universities outside of U.C.S.F. regarding nicotine and addiction?
A. Yes. I've lectured throughout U.S. and around the world on nicotine addiction.
Q. Oxford?
A. Yes.
Q. You belong to a number of professional organizations, correct?
A. Yes.
Q. The Academy of Behavioral Medicine Research?
A. Yes.
Q. What does "behavioral medicine" mean?
A. Well, behavioral medicine deals with the aspects of medicine that are influenced by how people behave.
It includes things like how stress interacts with illness. Eating problems. Smoking behavior. Other sorts of behaviors that people do.
Also includes things like compliance with

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medications, why some people take medicines and some people don't. So it's the interaction between people's behavior and medical disease.
Q. You are a member of the American Heart Association, the Council on Hypertension?
A. Yes.
Q. The Association of American Physicians?
A. Yes.
Q. And then there's a whole page here of professional activity, your involvement in organizations, and your activities in those organizations, correct?
A. Yes.
Q. A lot them dealing with some of the organizations that we've already talked about, sir?
A. Yes.
Q. It also indicates that you are an ad hoc referee.
First, what is an ad hoc referee?
A. Well, when research work is published in a journal, it is reviewed by other scientists in the field to see if that work is valid, and important. And should be published.
I get sent articles from a lot of different journals in the field of smoking and health to review them to see if these papers should be published. And I look at them, and I write back a comment, saying if it should be published or shouldn't, and if it should be published what changes should be made to make it a better paper.
Q. So in other words, in your field, your areas of expertise, if you talk to us about, you'll be sent articles

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that people are submitting, other doctors or clinicians.
And then you will review them and go back to the journals that are looking at those articles and tell them whether or not they should be published?
A. Yes.
Q. Okay. And you've done that for a number of different journals, correct?
A. Yes.
Q. Addiction?

A. Yes.
Q. That's the title of the journal?
A. Yes.
Q. The American Journal of Cardiology?
A. Yes.
Q. The American Journal of Clinical Nutrition?
A. Yes.
Q. The American Journal of Emergency Medicine?
A. Yes.
Q. The American Journal of Epidemiology?
A. Yes.
Q. Hypertension?
A. Yes.
Q. Kidney Disease?
A. Yes.
Q. Medicine.
A. Yes.
Q. It fills an entire page, correct?
A. Yes.

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Q. Including British journals on medicine?
A. Yes.
Q. Now, I want to talk about some of your other works that you've done professionally in these areas.
1986, U.S. Surgeon General Advisory Committee work?
A. Yes.
Q. What did that have to do with?
A. Well, I was involved then with a couple of Surgeon General's reports.
I don't remember the exact dates, but there were two Surgeon General's reports that I worked oh. One was the report on passive smoking. And health consequences of passive smoking.
And the other one was the report on smokeless tobacco, which is like spit tobacco and snuff.
Q. Okay. If you can remind me.
1987, do you remember working on the U.S. Surgeon General's report on smoking and health, nicotine addiction; you were the scientific editor?
A. Yes. I was one of four scientific editors, so we were responsible for really organizing and writing the final draft of that report, which, I think, was the first systematic collection of information about nicotine addiction in the world and really became the benchmark document for -- The basis for nicotine addiction.
Q. You've also, I think, touched on it, but you've worked in the field of environmental tobacco smoke, which is sometimes called E.T.S.?

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A. Yes.
Q. Secondhand smoke?
A. Yes.
Q. Workshop smoke?
A. Yes.
MR. GROSSMAN: Your Honor, may we approach.
THE COURT: Yes.
THE COURT: Please don't overhear our conversation.
(At Bench)
---o0o---
MR. GROSSMAN: Tobacco smoke, you were leading him with questions in that area --
MR. PAUL: I just asked --
THE COURT: Anything more on this?

MR. PAUL: No. I was done.
THE COURT: Okay, go ahead.
(Back In Open Court)
Q. BY MR. PAUL: In 1993, what is the Institute of Medicine?
A. That is a national organization of prominent health scientists who are asked to meet in committees to discuss issues of national public health consequences.
And I am not a member of that, but I've worked a couple of those committees.
Q. And, in fact, you worked on the committee on preventing nicotine addiction in children and youth, correct?
A. Yes.

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Q. 1994, you worked with the National Cancer Institute Committee --
A. Yes.
Q. -- Dealing with determining tar and nicotine in carbon monoxide level in cigarettes?
A. Yes.
Q. Coming more up to date, 1998, U.S. Surgeons report on tobacco use on U.S. racial and ethnic and minority groups?
A. Yes.
Q. What was the nature of that work?
A. Well, that report was looking at differences in tobacco use and addiction and -- Tobacco-related diseases and different racial, ethnic groups.
So it really compares whites, Hispanics, African Americans, Asian Americans, and American Indians, or Native Americans and tried to look at -- At any -- At any differences, because our big differences in smoking rates and the risk of getting sick if you're a smoker.
And that report tried to explore what was known about those differences and tried to develop ways to use that knowledge to better treat different smokers.
Q. 1998, you were a member of the Canadian Expert Committee on Cigarette Toxicity Reduction?
A. Yes.
Q. What was the nature of that committee?
A. That committee was one that was looking at the question, if people can't smoke, is there anything that could be done about cigarettes or cigarette-tobacco-like

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products to make them less hazardous? And we addressed that question, and if so, what can we do, and how could such products be regulated?
Q. In the Year 2000, 2001, you worked with the World Health Organization dealing with tobacco?
A. Yes.
Q. You were chair?
A. (No Response)
Q. Of the Safety Section?
A. Yes. That's a web site. That's a world health organization, and our Nicotine Research Society has put up --
It's available to anyone that gives the state-of-the-art opinion about different aspects of smoking and health. And I was the chairperson of the section on safety, which talks about different aspects of medications used to treat smokers and the benefits and risks of those medications.
Q. From time to time, have you been called upon to

testify before committees regarding the subject of nicotine and addiction?
A. Yes.
Q. On how many occasions?
A. Well, I've -- Testified in front of Food and Drug Administration committees.
I've testified in Occupational Safety and Health Administration hearings.
I was part of an Environmental Protection Agency
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Committee which looked at passive smoking risks.
That's all I can remember right now.
Q. Okay. Were you involved in a U.S. Surgeon General's Report on Women and Smoking in 2001?
A. Yes.
Q. What was your involvement in that?
A. Well, I was responsible for drafting the material on nicotine addiction in women, and how women might react differently to nicotine than men. So what's different and what's common.
Q. Do women react differently to nicotine from men?
A. Well, there are some differences. There's a lot of similarities, but there are some differences.
Q. You've written in the field that we're talking about, correct?
A. Yes.
Q. Can you give us any idea of how many different articles you have written regarding nicotine and addiction that have been published?
A. Well, all told, there are more than 300 articles. I would say 80 percent involve nicotine-tobacco-related issues.
Q. So something in the area of 240 to 250 articles published on these subjects?
A. Yes.
Q. Okay. And from time to time, have you had occasion to get involved in matters such as this, a trial, regarding the subject of nicotine and addiction?
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A. Yes.
Q. Okay. And have you qualified as an expert in those trials?
A. Yes.
Q. Let's go back to some of the basics.
What is nicotine?
A. Nicotine is a chemical. It's a small molecule, a small chemical -- Which is found primarily in the tobacco plant or in highest concentrations, although it's also found, very small amounts, in other plants, even some foods.
Nicotine is thought to be present in tobacco as a protective agent because it's a very potent insecticide.
Black leaf 40, for example, is something -- It's a nicotine solution that people can spray on their roses, and it kills aphids. It kills insects.
Nicotine is a special chemical because its structure is similar to a substance that's called acetylcholine.
Acetylcholine is a chemical or like a hormone in the body which is responsible for communicating information from one nerve cell to another nerve cell. So when a nerve fires, it releases acetylcholine, which then binds to what's called a receptor on another receptor and activates that cell. So it's how the brain communicates internally.
A receptor is like a -- Like a lock. It's a

structure in space that a particular chemical fits into, but just that chemical fits in, and no other chemical. So it's like a key fitting into a lock.

The lock is the receptor, and the key is the

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chemical.

Well, it turns out because of the way nicotine is shaped, it fits into receptors that are meant for acetylcholine. So when a person or an animal gets exposed to nicotine, it starts activating nerves that are meant to be activated by acetylcholine.

Q. And it has what effect when that occurs?

A. Well, it's got a number of effects. In people, the main effects are to enhance or increase the release of other hormones -- Mostly in the brain, or certainly in terms of addiction in the brain -- That have got different behavioral effect. And it releases many different hormones. One that's most widely discussed is Dopamine.

Dopamine is important because that's the hormone in the brain that is related to pleasure. So whenever you have something that's pleasurable, it means Dopamine is released in the brain, and you're experiencing something that's related to that Dopamine release.

Now, any kind of pleasurable activity causes Dopamine release. Every drug of abuse causes Dopamine release.

What nicotine does is it augments the release. So, say, if you're doing something that's pleasurable and you also have a cigarette, you get more Dopamine release than you would by that pleasurable event by itself. And what corresponds to that is pleasure, so most people who smoke cigarettes like them. And, as is true for every other drug.

If you use cocaine, you like cocaine.

If you use heroin, you like heroin.

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And if you use alcohol, you like it.

And that's mediated by Dopamine.

Now, there are other effects that get involved with things like attention, so there are stimulant effects of nicotine.

There are effects that help you concentrate, and also effects that reduce anxiety and stress.

And there are also hormones that have an effect on depression, make you less depressed. There are hormones involved in the appetite, so smokers can smoke cigarettes and won't be as hungry.

So the bottom line is that nicotine releases a lot of different hormones and do different things for the smoker. And if you ask the smoker what they get, they don't know about the hormones. But they tell you that the first cigarette in the morning stimulates me, gets me going, like, perks me up. A non-smoker would think about coffee.

A smoker will say if I get tired during the day and I can't concentrate, a cigarette will help me concentrate, keep me focused, sort of keep me on track.

They'll also tell you that if I feel anxious, I'll feel less anxious. And if I feel stressed, I'll feel less stress. And if I feel depressed, I'll feel less depressed.

And it's also a relaxant. Smokers say a cigarette before a meal or even before bedtime, it helps me relax and go to sleep. So a cigarette is how you can use a drug to really control a drug and your arousal level.

And smokers come to rely on that, and smokers who

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smoked a pack a day say each cigarette is eight puffs, or eight doses. So a pack a day is like 160 doses of a drug that you use that can help to control how you feel. And smokers come to rely on that to help them deal with the stresses in their life.
Q. How does this nicotine get to the brain?
A. Nicotine -- When you burn a cigarette, nicotine gets vaporized, sorts of boils out of the tobacco. And it -- And it's carried by particles that are called tar particles:
Tar is water. It's got nicotine, and it has other sort of substances, some of which are involved in cancer, but a bunch of other substances in tar particles. And these particles are carried by gas, and this gas includes air and carbon monoxide and cyanide. All a lot of different parts.
A person takes a puff, and the smoke goes into the lung, and very quickly nicotine gets absorbed into the lung through the bloodstream and into the heart.
Once it gets into the heart, it acts very quickly through the heart and to the brain. It takes about maybe 10 to 15 seconds from when you take a puff on the cigarette until the nicotine gets to the brain.
And that, we think, is very important for a couple reasons.
One is that you can get a high concentration, but you get it in your bloodstream quickly in a short time. You get a high level.
It also gets there quickly. So you take a puff, and it gets an effect right way.

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And we know from drug abuse in general that there's a concept called reinforcement, which means that you take a drug and you get an effect. And if that's a positive effect, then you take the drug again.
And the shorter the time interval between when you get the drug and when you get the effect, the more reinforcing it is.
And 15 seconds is as short as you can get. It's as short as dosing with an I.V. So people take a puff of nicotine, and that's the effect. And that's reinforcing.
Another thing it does, it allows people to control their dose. They can take bigger puffs, smaller puffs, fewer puffs and get just the amount of nicotine in their brain to get effect that they want.
And that's why people smoke. They just are smoking, but if you look at smokers smoking day-to-day-to-day -- And we've done this in research studies -- An individual smoker takes in about the same dose of nicotine every single day, by, by titrating the dose puff-to-puff.
Q. I was going to ask you what titrating means?
A. Titrating is like adjusting, so if you don't have enough in one puff, you take more the next puff.
If you've got a little bit too much on the first puff, you take a little bit less on the second puff. So you adjust your dose to get just the right amount.
Q. So when a smoker says, "I enjoy smoking," based on your research, they're talking about the feelings they get from smoking?

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A. Yes. Smoking -- Nicotine effects, and someone, once they get past the initial stage of getting sick -- Because most smokers in the beginning get sick -- Once they get past the first few cigarettes, most smokers really like the effects of nicotine, just like they like the effects of

every other drug of abuse.
If you're a cocaine user, you love cocaine; you like it. Doesn't mean that it's not addicting. That's part of the addiction, really.
Q. You like the feeling?
A. You like the feeling.
Q. Okay. Now, you said before that it was a drug.
How does one define something as being a drug?
A. Well, the Food and Drug Administration has a definition which I use, and it is a substance other than a food, or some other substance necessary for life. It's not air; it's not food -- Which causes functional, or structural -- Structural changes in the body. It changes body functions and -- Or changes body structure.
And nicotine does both.
Q. All right. Let me give you an example:
A lot people who are runners talk about a runner's high, they get a high from running. We -- That's something that comes naturally from just exercising the body?
A. Right. There are feelings that you can get from your own body's chemicals, your own body hormones. That's not a drug effect. That's something that has to do with your normal control of feelings and emotion.

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Q. Well, is caffeine a drug?
A. It depends. Caffeine is a constituent of food.
Now, caffeine is also marketed as a drug for specific indications.
And if you were to, for example, take a Nodoz tablet to help you stay away, you've taken a drug.
It's arguable, if you add caffeine to a soft drink, whether that's a drug or a food. But caffeine is natural in some foods like in chocolate. And there are caffeine properties in food.
Q. Are caffeine and nicotine similar?
A. Well, they are similar in some cases, and they are different in some situations.
They are similar, in that they both have a stimulant effect, so the first cup of coffee in the morning helps stimulate you. If you're getting tired in the day, you have a cup of coffee, and that helps keep you going. And same thing for a cigarette.
They both have some affects on brain hormones, and some of the same hormones.
What's different about it is that most people who, say, drink coffee, drink one or two or three cups a day.
Most people, if they need to switch to decaf, the doctor tells them, and can stop, they might get a headache for a day or two. But most people can switch and drink decaf coffee.
There are some people who are addicted in the sense of not being able to control the caffeine. Those are

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probably fewer than ten percent of the population, and those are people who are smoking -- Drinking six or eight or ten cups of coffee per day.
So most people who use caffeine are not addicted. They may have a physical dependency, which I can explain later, but they're not addicted in terms of compulsive use.
In contrast, nicotine -- Well, caffeine goes -- It's absorbed slowly and gets to the brain relatively slowly. It takes 30 minutes or so.
So the effects are much less intense than the effects

of a cigarette. So for nicotine, nicotine gets to the brain faster. Once you become a regular smoker, most people smoke throughout the day, every day.

You can't -- People will not smoke a cigarette without nicotine. Coffee drinkers can drink coffee without caffeine.

If doctor says switch to decaf, most people do it. No one smokes a cigarette without nicotine.

Q. Let me stop you for a second. You've done research now for how many years in the field of nicotine?

A. Twenty-seven.

Q. And have you looked at this idea of whether people will smoke without nicotine in cigarettes?

A. Yes.

Q. You've done actual research on that?

A. Well, we are -- I have written about that proposal, and I'm actually doing some research in that area now, to see if people can take a lesser amount of nicotine.

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We know from marketing experiments that people don't buy cigarettes without nicotine, and no one smokes cigarettes that are nicotine-free substances.

Or -- Unless they have some other active substance.

So by history, we know that people don't smoke tobacco without nicotine.

What I've been interested in is the possibility of whether cigarettes could be -- Could have a lower nicotine content over many years to make them non-addicting. And we've done research on that, but no such cigarette exists like that at the moment.

Q. We'll talk a little bit more about that in a second.

What got you involved in doing research in the field of nicotine?

A. Well, it had to do with the circumstances of my training, which was in medicine, heart disease and drugs. I was -- My fellowship, I studied drugs that were used to treat heart arrhythmias. My first job was actually working on a research project, actually studying the effects of marijuana on the heart, so doing research studies trying to see what marijuana did to heart functions.

And when I was doing that, I thought, well, this is interesting work, but marijuana is not a major health problem in the way that smoking is. And it's -- My interest is really cardiovascular disease, and so what I should be doing is not studying marijuana but cigarettes.

So I took what I learned about studying a smoked drug, which was marijuana, and I translated that, and I set

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up a laboratory. My laboratory was one of the first in the world to measure nicotine levels in people, and I --

We just said, okay, let's study nicotine and cigarettes as a potential way to prevent heart disease.

Q. And it's a -- An area that you've continued in for these 27 years, I think you said?

A. Yes.

Q. How much of your time is spent dealing or work or researching in the area of nicotine?

A. Well, my research is about 40 percent of my time. Of course, I have some patients who I have to deal with as well who are smokers, but my research takes about 40 percent of my time.

Q. When you say you have a patient load that includes smokers, what's the nature of your patient load?

A. I seek two kinds of patients mostly.
One is for one-half day a week, I have a general cardiology clinic. So it's like a practice, but it's at the county hospital. And I see heart-disease patients with high blood pressure, with coronary disease, with heart failure, with all kinds of heart-disease problems.
And then, I also spent two months as being sort of the -- The physician in charge of one of the wards, one month in general medicine ward and one month in a cardiovascular disease ward, where I work with patients and residents, patients who are admitted to the hospital with serious illness.
In my clinic and on the ward, cigarette smoke is a

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big issue. Cigarette smoking is the number-one preventable cause of heart disease, and therefore, I have to work with all my heart-disease patients who are smokers and try to get them to quit.
On an inpatient service, we see many patients who have heart disease, lung disease, emphysema and cancer, and smoking is a major cause of those as well. So we have to put in a fair amount of effort in talking to patients to try to get them to quit smoking to try to protect their health.
Q. And in dealing with your patients and in doing this research, have you researched into the area of -- The effect of nicotine on the human body?
A. Yes.
Q. Okay. And you published, I think you've already indicated, dealing with certain of those areas -- Correct?
A. Yes.
Q. You touched on it earlier.
You said you're looking into or have looked into how men and women differ in -- In response to nicotine, correct?
A. Yes.
Q. Let's talk about men. How do men differ? What is it that makes them different in reaction?
A. Men from women?
Q. Yes.
A. Well, it's a little bit complicated. But --
Q. See if you can make it less complicated.
A. Men -- Women, all are more influenced by situational

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factors, as well as nicotine, in their smoking behavior as compared to men.
Let's see if I can --
Q. Maybe you can give us an example.
A. For example, stress or feeling anxious will have a bigger effect on a woman's smoking behavior than it would on a man's smoking behavior.
Both men and women tend to control their nicotine levels. Men tend to control it more precisely than women do, because the women are influenced by other things.
Women are also influenced by the menstrual cycle, so they tend to smoke more in parts of the cycle as compared to other parts of the cycle.
Depression is a major factor in smoking behavior. If you have depression, you're more likely to smoke; you're more likely to smoke more. It's harder to quit. And when you do quit, you have more symptoms when you try to quit.
And depression is much more common in women than men, and so depression is linked to smoking more in women than men.

Body weight is an issue in women more than men.
Smokers weigh, on average, seven pounds less than non-smokers, and that's because of the effect of nicotine. And when you quit smoking, on average, you gain those seven pounds back.
Now, some people gain more; they gain 20. And many teenage girls start smoking in part because they want to control their body weight, stay slim. That's a very popular

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image, and so another factor for women is use of cigarette smoking to stay slim.
So those are some of the differences.
Q. In doing this research on nicotine, sounds like you've touched on a number of areas in your research over 27 years.
A. Yes.
Q. And have you received grants for doing some of this work?
A. Yes.
Q. What is a grant?
A. A grant is an award of a certain amount of money that is given to conduct research that you propose. So I would submit a grant application, which is a proposal, saying I would like to do these research studies. And I would send them to a government agency or some other agency, and there would be a review panel who would look at it and say that you should be funded or not.
Q. What are some of the agencies that have funded your research into nicotine and it's effect?
A. I've been funded by the National Institute on Drug Abuse, National Cancer Institute, Heart Lung and Blood Institute. Environmental protection Agency.
And there's a recent grant I got from the Flight Attendant Medical Research.
Q. And has part of your medical research on the effect of nicotine also dealt with the area of addiction?
A. Yes.

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Q. You said before nicotine is addicting?
A. Yeah.
Q. First, how does one define addiction?
A. Okay. Well, I -- I'll give you two definitions. One is a little bit of a technical definition, and one a common-sense one.
On the technical one, which is the one that we've developed in the Surgeon General's Corps, is the compulsive use of a psychoactive drug that is reinforcing.
What that means, "compulsive use" means that you use a drug and you have difficulty controlling its use. You're not using it when you don't want to use it. (sic)
Psychoactive drug means a drug that affects your mood or your thinking, some brain function.
And reinforcing means that your use of the drug is determined by the effect of that drug. For example, you could compulsively use coffee, but it was decaf coffee, you couldn't say it was caffeine addiction unless it was caffeine that determined the use.
For tobacco, we know people just don't smoke cigarettes, so it's not just cigarette addiction independent of nicotine. They only smoke cigarettes containing nicotine, so nicotine is reinforceable. Now that's the technical definition.
Now, the common definition is loss of control of drug

use, which means that if a person wants to change their drug use or stop, it's hard to do so.

It's not impossible, but it's difficult.

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And that is really the common, bottom-line definition for all drug addiction.

Q. Are there actually publications that talk about definitions of addiction?

A. Yes.

Q. What are some that give definitions of addiction?

A. Well, definitions have been given by -- Well, in the Surgeon General's report, the World Health Organization, you've got some definitions.

There are some criteria, a little bit different in definition presented by the American Psychiatric Association.

And then there are other agencies that have also -- There is a Canadian group that I think also has published some addiction definitions.

Q. Do you have occasion from time to time to evaluate people who were using nicotine to determine whether or not they're addicted?

A. Yes.

Q. Tell us about your background in that area.

A. Well, I do it in two ways:

First of all, part of the research that I do is to understand factors that determine or predict addiction.

We've been looking at metabolism factors and genetic factors, and so we do extensive questionnaires on smokers who try to figure out why they smoke, how they smoke, and et cetera. So I use -- I try to collect information in my research studies. And then, as I said before, in my

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patients.

When I have a patient who smokes cigarettes and I want them to quit smoking, I start talking to them about their smoking, I start talking about their smoking patterns, about the kind of cigarettes that they smoke.

I try to get an idea of what I can do to help them quit.

Q. In doing this work, have you developed any aid or documents to assist you, like questionnaires and things of that sort?

A. Yes.

Q. Tell us about that.

A. Well, it's not really a questionnaire in the sense of -- An instrument that is scored.

What people often talk about in psychology is a questionnaire that you take, say it's like a driving test. You know, you answer the questions, you get a score.

Mine is really like an interview guide. It's a number of questions that I have put together that asks about smoking behavior.

MR. GROSSMAN: Your Honor, may we approach.

THE COURT: Yes.

(At Bench)

MR. GROSSMAN: Your Honor, this touches upon -- I'm sorry.

MR. PAUL: Thank you.

MR. GROSSMAN: Your Honor, this is a particular area that we dressed in a motion in limine.

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Briefly, the questionnaire that Dr. Benowitz is

referring to, first of all, was developed for litigation purposes and only for litigation purposes.

Secondly, the responses to the questionnaire were typed in Mr. Brown's office, the attorney's office. Dr. Benowitz does not know whether Mr. Lucier answered the questions or Mr. Brown answered the questions or both. They're not -- They're not generally acceptable under the Freie standards. They are not -- And furthermore they're not reliable under any circumstances. And they're hearsay.

MR. PAUL: I haven't even asked that.

MR. GROSSMAN: But this is the predicate to that.

THE COURT: Where are you going with this?

MR. PAUL: Well, basically, how he goes about determining, based on his background, training and experience, how one is addicted. He developed, he says -- It's not a scientific --

THE COURT: Shall we put this on the record now? Take a break?

MR. GROSSMAN: Yeah, I think so.

MR. PAUL: Sure, whatever your Honor wants to do.

THE COURT: Okay, fine.

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THE COURT: We're going to take a break here. Please don't discuss the case. Come back at 3:30. 3:30.

(The jurors depart at 3:15 pm.)

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MR. PAUL: There is an easy solution to this. I am

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not going to show the questionnaire. I'm not going to keep going into the questionnaire. I'm just trying to figure out what his process is, for him, to develop information on which he reaches conclusions about whether or not someone is addicted.

THE COURT: Okay. So where --

MR. PAUL: That was almost the --

THE COURT: Was that it?

MR. PAUL: Yes.

THE COURT: What about Mr. Lucier? Are you going to bring in evidence about his use of a questionnaire with respect to --

MR. PAUL: No, I'm not going to be talking about the questionnaire at all.

THE COURT: So this is a non-issue at this point?

MR. PAUL: Yeah, that's what I was trying to say.

THE COURT: That's all right.

MR. PAUL: It's okay, Judge. It's probably about good time for a break.

THE COURT: Well, it was time for a break, about time for a break, so 3:30 sharp.

MR. PAUL: Okay.

(3:15 pm)

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(Nothing omitted page 2771.)

(Nothing omitted page 2771.)

(Nothing omitted page 2771.)

C H R O N O L O G I C A L I N D E X

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E X H I B I T S I N D E X

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THE COURT: Okay. Bring the jury in, please.
(The following proceedings were then had in open court in the presence of the jury.)
THE COURT ATTENDANT: Please be seated and come to order. Court is again in session.
THE COURT: Okay. Mr. Paul.
MR. PAUL: Thank you very much, your Honor.
Q (By MR. PAUL) Dr. Benowitz, when we broke I was asking you about the process that you go through in evaluating whether people are addicted. Do you recall that?
A Yes.
Q And I think you said that you have sort of a checklist or something that you go through in assisting you in that process?
A Yes.
Q Okay. Now, how long have you been doing this evaluation of people to determine whether or not they're addicted?
A Well, I think we've been doing this in our research since the seventies.
Q Okay. And in doing these evaluations, has part of your research also attempted to evaluate when people become addicted?
A Yes.
Q Tell us about that. What is that -- first, that concept when someone gets addicted. Does it take time to addict someone to nicotine?
A Yes. Most people who start smoking start smoking before the age of 20. Like 90 percent of people start before the age of 20. When people start smoking they start smoking mostly

because their friends smoke, or there's some peer involvement, or their parents smoke sometimes, brothers and sisters, but they smoke for social reasons. They smoke with friends. They smoke socially.
As a person continues to smoke -- some people have reactions, they cough, they don't like it, and they have one or two cigarettes and never smoke again. But if you get past the first few cigarettes so that you're not sick anymore, then people begin to experience the drug effects of nicotine.
And then what happens is people are not only smoking socially but they also start feeling, well, the cigarette is doing something to me; it's giving me a lift or stimulating me or helping me deal with stress or anxiety. And in time there is a transition. So people begin to smoke not just in social situations but when they're alone, when they -- they need a

lift or when they're feeling down. And that transition from smoking in social situations to smoking for the drug effect is the beginning of addiction.

Now, addiction itself is a process that takes years to develop in its full form. Because it's not just a drug effect, it's also having the experience many times over. You come to learn that the experience is associated with a taste, so you come to like the taste and the smell. You smoke in certain situations, like after a meal or when you're stressed. And links develop, so it's what we call conditioning, and pretty soon the whole complex of smoking, not just the pharmacological effect but the taste and the smell and the situations all become part of your behavior, and that whole process of

addiction takes several years.

Now, it turns out that the behaviors, the condition parts, don't last if you don't have nicotine. So that the taste and the and the smell and whatnot are pleasurable to you because they're linked with nicotine. But if you take nicotine out of the cigarettes people don't keep on smoking, they stop.

Q Now --

A But -- but --

Q I'm sorry.

A It's that process, and it takes a couple years. I would say when a person is smoking for pharmacologic effects is the beginning of addiction.

Q Okay. Thank you. I'm sorry for interrupting.

Now, do individuals vary on this subject of addiction? I mean is there an individuality to whether someone becomes addicted or not?

A Yes. And that's -- this is something that we have been studying a lot. There are at least several factors that we know about. We have been doing twin studies. So you study behaviors in twins, identical twins and non-identical twins, and you see how alike they are. These are twins who are grown up and living apart. And it turns out that if you become a smoker -- I should step back.

If identical twins do some behavior alike and non-identical twins don't, that suggests that it's genetic. It has to do with your genes, your DNA. So it's the genetic material you're born with. And whether you become a smoker has got a lot of genetic factor to it. How much you smoke. Some

people are very light smokers, they smoke five cigarettes a day or fewer. That's genetic. If you're a really heavy smoker, that's partly genetic. Whether you can quit is partly genetic.

Now, the explanation for this we don't know for sure, but part of it has to do with differences in the receptors in the brain. Because each person has a different combination of these nicotine receptors. And in -- in animal studies -- we don't do this in people -- but in animals, if you change the nature of the receptors in the brain by doing some what's called genetic engineering then you change how much nicotine the animals will take. So we think humans vary in terms of the genes in the brain. That's one factor.

There are also other things like -- some personality things. Like depression. As I mentioned before, if you have a history of depression, you're more likely to smoke and it's harder for you to quit. Alcohol abuse. If you have an alcohol abuse problem, then it's -- then you're much more likely to

become a smoker and it's much harder for you to quit.
The way it turns out is that there are big differences. There are some people who can smoke two packs a day for 30 years and quit cold turkey and not blink. Unfortunately, there are not many like that. Most people even smoking many fewer find that when they try to quit it's difficult and it takes them on average four or five times. But there's a lot of variation, and we're trying to figure out why.
Q Okay. So when you look at this addiction picture it's not just black and white, you have to look at the individuals

involved as well?
A Yes.
Q Okay. Now, as a -- as a drug and as an addicting drug, is nicotine what you might call highly addicting?
A Yes. It is as highly addictive as any of the drugs of abuse. Now, that's not to say it's not different. But it's addictive in the sense that -- if you look at the total number of people who use a drug, first, there's the number of people who are addicted or dependent on it. For alcohol, about 15 percent of alcohol users are addicted to alcohol. For heroin and cocaine the figures are harder to find, but it's probably 50 percent. So half of heroin and cocaine users only use occasionally. For smokers it's about 80 or 85 percent of smokers who smoke are addicted. So in terms of the chances of being addicted if you use a drug, smoking is actually the highest.
If you look at other things, like the chances of quitting, if you go into a treatment program, are no different for smoking versus heroin addiction versus alcohol addiction. So, again, from that criterion, smoking is just as addictive or more addictive.
Now, there is one difference which is important to note, and this is an important difference. Drugs like heroin, cocaine and alcohol do some negative things to behavior in the short-term. You get intoxicated, you get loaded, you can't do your job right, so it impairs your function.
Nicotine doesn't do that. You can smoke a cigarette, you can work, you can do whatever you're doing. And that's

probably what makes nicotine even more addictive, because you can take it all day long, you can take whatever doses you want. And it doesn't have a down side like you get -- you lose your coordination or you fall asleep. So that actually makes nicotine more -- the fact it's not intoxicating makes it more addictive.
Q Okay. Just carrying on that thought for just a second, it's true that alcoholism can be a problem and a serious problem, correct?
A Yes.
Q It can disrupt family lives, it can disrupt work, all the things that you've been talking about, correct?
A Yes.
Q Okay. And because of that there's a certain social stigma that goes along with that?
A Yes.
Q Okay. From the standpoint of smoking, in your research have you found that same social stigma?
A Well, it's different. There is not the same social stigma that goes along with, say, showing up drunk for work, or missing days because you happen to have a hang over.

Social stigma is more related to within families and one person doesn't want someone else to smoke and there's that kind of pressure. There are issues about not smoking in the workplace, but it's not the same sort of thing. It's not disruptive to your performance in a family or in your job. You can do whatever you want to do. So it's not -- it's a different kind of stigma. It really has to do with just

specific situations where you can't smoke.

Q Okay. Now, you talked about people quitting.

A Yes.

Q Can people quit smoking cigarettes?

A Well, they can but it's tough. If you look at national data, most surveys indicate that about 70 percent, that seven out of ten smokers, would like to quit. Each year about 30 percent, or three in ten, make a quit attempt lasting at least one day. But only three percent of all smokers, or one in ten who try, is successful.

So that means that you can quit, and many smokers have quit, but it usually takes four or five quit attempts before you succeed. So it takes a lot of effort. Some people quit on the first attempt and some people never seem to be able to quit. And for those -- there's a lot of research going on now in what's called harm reduction -- for people who can't quit, is there someway to make cigarettes less harmful.

Q How about motivation? How does motivation fit into people quitting this addiction?

A Well, you have to understand what "motivation" means. It's not something that just sort of comes to you out of the sky. Motivation has to do with a balance of factors. Motivation occurs for reasons. Like if you're concerned about your health, that's a motivating factor. We know, for example, that having a heart attack is the best way to get someone to quit smoking. 50 percent of smokers quit after a heart attack. That's the good part. The bad part is that 50 percent still smoke, knowing that a heart attack -- that their smoking

could cause another heart attack in the near future. But at least 50 percent quit. That's a motivating force.

Family pressure is a motivating force. Cost of cigarettes could be a motivating force. Those are all things that are a part of motivation to quit.

Now, opposed to that is the level of addiction. The more addicted you are, then that kind of sort of counterbalances motivation. And the net result of these various forces is what a person perceives as motivation. So if the things making you quit get really, really strong, then you're more motivated and ultimately you quit.

Q How about the concept of risk? You sort of touched on it. The fact that there's knowledge, understanding that there's a potential risk from smoking. You used the example of a heart attack. The doctor tells you don't do this anymore, it may do the same thing to you. How does that play into people stopping their addiction?

A Well, health risk is certainly an important factor. However, there's an interaction between the addiction and perception of risks. This is true for any addiction. When you're addicted you want to try to keep on using the drug. And if -- if you're a rational person, you don't want to be doing something that is harmful to yourself, you want to find a way that to keep on doing it in a way that makes sense.

MR. GROSSMAN: Your Honor, could we approach?
(The following bench conference was then had.)
MR. GROSSMAN: This is beyond the witness' qualifications. We would seek to voir dire him on risk

perception and psychiatry if -- if he's going to go into this. He's not a psychiatrist. Not only is he not board-qualified but hit testimony is he isn't eligible to be --
MR. PAUL: His area of risk perception --
MR. GROSSMAN: Risk perception is different.
MR. PAUL: If someone understands the risk, like someone who's had a heart attack, how does that impact someone quitting.
THE COURT: Is this an area that you're going to explore at some length now or what?
MR. PAUL: No. I was just touching on this area and I was going to move on. I'm not sure what the objection is.
THE COURT: Do you have any more examination in this area? The question for me is whether or not I should permit him to voir dire on qualifications on this limited issue at this point.
MR. PAUL: Whether he has background? He's a member of the Department of Psychiatry.
THE COURT: I appreciate all of that.
MR. PAUL: No. I'll move on to a different subject.
THE COURT: Okay.
MR. PAUL: Make it easier, if that's all right.
THE COURT: Okay.
(Bench conference concluded.)
Q (By MR. PAUL) Are you familiar with the term "rationalization"?
A Yes.
Q What is rational --

MR. GROSSMAN: Objection, your Honor. Same objection.
THE COURT: Approach the bench again.
(The following bench conference was then had.)
THE COURT: What do you -- are you asking to voir dire him on qualifications on this issue?
MR. GROSSMAN: Well, rationalization, again, is a psychological or psychiatric matter. It is not a question of the pharmacology that this witness is, we agree, qualified to talk about.
MR. PAUL: He's more than a pharmacologist. My God. He's already testified about his addiction. Expertise, he's a world-renowned expert.
MR. GROSSMAN: He was not designated on this matter --
MR. PAUL: Yes, he was.
MR. GROSSMAN: -- whether people -- whether people rationalize their conduct. What he was designated to talk about was addiction as such in his area of expertise, which on one hand is cardiology and clinical pharmacology.
THE COURT: It seems to me that his general qualifications, those stated at the outset, would be a sufficient qualification for him to be discussing these issues. I'm going to give you an opportunity to provide some further specific foundation on these at this point in time.
MR. PAUL: All right.
THE COURT: But I'm not -- I don't think it's appropriate and I would not exercise my discretion -- in view of his earlier testimony which seems to be me to be adequate

already -- to interrupt his testimony for any substantial voir dire as to his qualification.

You can reserve that issue and discuss it when you engage in your cross-examination. But as a discretionary matter now, I think some further specific foundation may be appropriate, but we're not going to interrupt for extended voir dire.

MR. PAUL: Thank you, your Honor.

(Bench conference concluded.)

Q (By MR. PAUL) Dr. Benowitz, in your background in your work in addiction over the last 27 years, have you been involved in analyzing addiction from the standpoint of -- well, let me go back a step.

You indicated earlier you were a member of the Department of Psychiatry; is that correct?

A Yes.

Q I think you said that you actually lecture psychiatrists on the subject of addiction, correct?

A Yes.

Q What is the nature of the lecturing that you do with psychiatrists?

A Well, I talk in a way very similar to the way I've been talking in this court today about what nicotine does to the brain and how it affects behavior.

Q Okay. You talked about that before, being involved in behavioral sciences, correct?

A Yes.

Q How humans behave in response to certain stimuli or input.

A Yes. Addiction is a phenomenon that is a combination of interaction of a drug effect and the behavioral responses to that, and they're interactive and they're not really separated. Behavior is determined by physiology or -- that's like the body's response. And drugs cause a change in body physiology and they affect behavior. So you can't study addiction without talking about behavior, studying behavior.

Q So when we talk about things like motivation, that's behavior, correct?

A Yes.

Q The type of thing you talk about when you're lecturing people who are becoming psychiatrists, correct?

A Yes.

Q Okay. And it's part of what you've studied over the years, correct?

A Yes.

Q And if I use the term "rationalization," do you know what that term means?

A Yes.

Q Have you lectured psychiatrists on this subject behavior and rationalization?

A I have lectured about that, yes.

Q Okay. And these are people who are becoming psychiatrists, correct?

A Yes.

Q Okay. What is rationalization?

A Well, one of the, in a sense, definitions of drug addiction is when a person is doing something -- I was taking a drug -- when it is doing something harmful to them. So even

though they're a rational person, they're doing something which is potentially harmful.

Now, that -- -- that's not logical for a person to do that. And so the way a person deals with that is they say -- they change the consequence or they perceive the consequence differently. They say, Well, it's not really as bad as other people think. Or for smokers it's common to say, I feel good now. I'm not sick. Smoking might hurt someone else but it's not hurting me, and therefore I'm okay. Or they say, Smoking is bad for you if you smoke 20 years, but I'm only going to smoke for five years; therefore, it's okay to me.

So they're doing something to rationalize so that their behavior makes sense to them. Because otherwise it wouldn't make sense to be doing something if you think it's going to kill you.

And that's what rationalization means. And that occurs not just in smoking, but it occurs with any drug addiction. People try to do something to make their behavior make more sense to themselves.

Q And how does that impact a person's desire to quit smoking based on your background, training and your research?

A Well, what it does -- and there's a lot of research on this -- is that many smokers think that smoking is not as bad as other people do. Or they do things like I just say, they minimize the risks. Either they say it's going to happen later on, or I'm feeling good now, and therefore the health hazards are not so compelling to them. They're not worried about them now because they don't think it applies to them. And that

reduces the motivation. Because health concerns are one part motivator.

Q Are you familiar with the term "denial"?

A Yes.

Q Does denial play a part in motivation to stop smoking --

MR. GROSSMAN: Your Honor --

MR. PAUL: -- for someone who's addicted?

MR. GROSSMAN: -- the form of these questions is leading.

THE COURT: Overruled. He's an expert.

THE WITNESS: Denial is very similar. That just means that -- that your -- you don't believe something that would be bad for you to believe. Like you don't believe smoking is bad for you. So you say well, there's a controversy about it and therefore I don't believe that it's a problem.

So, you know, it's like rationalization but it's a specific kind of rationalization where you say I don't think that this is really true, and therefore I don't have to change my behavior in response to it.

Q (By MR. PAUL) Would it be true if somebody wants to quit smoking they can quit smoking?

A What was the question again?

Q If someone wants to quit smoking they can do it.

A Uh, well, for the most part that is true, although it takes smokers many times, many attempts to do and it, often a long time, years.

Like I said before, some people seem not to be able to quit. Now, anyone can if you take them out of the their

environment. If you put someone in jail and don't give them cigarettes, anyone can quit. So anyone could. But in their own environment, most people we think can with appropriate

encouragement and treatment and time, and probably some can't.
Q What I'd like to do now is give you a hypothetical of the smoking history of Mr. Lucier and get your opinion about if he's addicted and when he became addicted. All right?
A Okay.
Q I want you to assume that Mr. Lucier had his first puff on a cigarette at age seven; that it was a shared cigarette with two or three other friends.
Would you assume that for me?
A Yes.
Q I want you to assume that his next encounter with smoking was at age 11 when he was smoking one or two cigarettes per day.
Assume that for me?
A Yes.
Q I want you to assume by age 13, now in the seventh grade, he was smoking five cigarettes per day.
Would you assume that for me?
A Yes.
Q I want you to assume by age 14, he's entering high school, he is smoking ten to twelve cigarettes per day.
Assume that for me?
A Yes.
Q Okay. I want you to assume by the time he reaches age 16 he is now smoking one pack per day.

Would you assume that for me?
A Yes.
Q I want you to assume that at age 16 that there is a seven-month period during roughly that year where he did not smoke at all.
Would you assume that for me?
A Yes.
Q That after those seven months he went back to smoking one pack per day.
Would you assume that for me?
A Yes.
Q Okay. Let me stop there and ask you a question.
The fact that someone stops for seven months -- at this point in time I want you to assume he's in a seminary where they wouldn't allow him to smoke -- the fact he stops for seven months, does that indicate to you that he is by that fact alone not addicted?
A No.
Q Why not?
A Well, it's like the situation that I mentioned about taking people out of their normal environment. I've done research studies where I've put smokers on research ward, and I pay them to be volunteers, and for periods of time they can't smoke for as long as a week or two. And most of them do okay because they're out of their natural environment, they don't have the normal stresses, they don't have the normal interactions. And many even say that I want to quit in the hospital, but as soon as they get back in their home

environment with their friends and their normal stresses of life they start smoking the next day and they're back to their usual level.
The same thing could happen with an addicted smoker in a situation like this. He goes off to school and the school rules are you can't smoke and he doesn't have access to

cigarettes very easily. It's quite conceivable and not surprising that he could quit for a period of time but as soon as he got back to his other situation and his friends and the environment that he go right back to smoking and begin smoking in an addictive way.

Q All right.

MR. GROSSMAN: Your Honor, I need to approach the bench.

THE COURT: All right. Please don't overhear our conversation.

(The following bench conference was then had.)

MR. GROSSMAN: My understanding of the rules of evidence and the substantive law of California doesn't allow an expert to testify as to what is conceivable under these circumstances but to a reasonable degree of likelihood. And he's not testifying in that regard. With regard to the hypothetical or with regard to Mr. Lucier, he's speculating.

The last question and answer -- I think the last question called for speculation and got speculation as the response. It's -- the answer was phrased in terms of it's conceivable that this happened, it's possible that that happened. It wasn't in terms of any likelihood.

THE COURT: Is he answering in terms of medical

probability?

MR. PAUL: No. I wasn't -- I didn't ask him an ultimate question. I just asked him based on background and experience can someone take a break from smoking and still remain addicted. That's all I asked.

THE COURT: I'll overrule the objection. You can proceed.

MR. GROSSMAN: Okay.

MR. PAUL: Thank you, your Honor.

(Bench conference concluded.)

Q (By MR. PAUL) Now, I want you to assume further that Mr. Lucier has indicated during that seven-month period that he didn't feel the withdrawal effects, if I can use that term.

Do you understand what I'm saying when I say "withdrawal effects"?

A Yes.

Q Are you familiar with withdrawal effects in people who try to stop?

A Yes.

Q I think I should ask you at this point, what kind of withdrawal effects are you familiar with with people withdrawing from using cigarettes?

A Well, another part of addiction which I didn't talk about is what happens when you quit, when you stop. When the brain is exposed to nicotine over time it changes, it adapts to nicotine, and the brain becomes dependent on nicotine to function normally.

And then when a person stops smoking a person feels

effects that are the opposite of the effects I talked about before. So instead of feeling stimulated, they feel lethargic; they have no energy; they're fatigued. Instead of feeling good, they may feel anxious; they may feel depressed; they can't concentrate; they can't focus; they get irritable and cranky. Those are some of the things people have when they quit smoking.

There are also some long-term effects for long-term smokers that are -- that can last for months, and that's what's

been called Anadonia Syndrome, which means it's a problem experiencing pleasure properly. So they feel mildly depressed and not normal and things are just not fun. And that can last for months. And someone six months later can have a cigarette and all of a sudden they feel normal. So the withdrawal state can last for quite a long time.

But, you know, on the other hand not everyone has withdrawal symptoms. Like I say, some people can quit smoking and don't seem to have any. We don't know why that is the case.

Q Well, I want you to assume that in this case Mr. Lucier has testified he did not have withdrawal symptoms for the seven months.

Would you assume that for me?

A Yes.

Q I want to you assume that after he completed the seminary period he went back to smoking one pack a day and continued to smoke one pack a day until age 49, or 1999, when he was diagnosed with having cancer.

Would you assume that for me?

A Yes.

Q Okay. I want you to assume that after that period of time he continued to smoke cigarettes and that he continues to smoke cigarettes to today. He still smokes one to three cigarettes per day after he was diagnosed with brain cancer.

Would you assume that for me?

A Yes.

Q Okay. Based on that hypothetical, do you have an opinion of when, if ever, Mr. Lucier became addicted to cigarettes?

A Well, I think he became addicted sometime between 11 and 14 years old.

Q Why do you say that?

A Because --

Q And is that with reasonable medical probability?

A Yes.

Q Okay. Why do you state that opinion, sir?

A That was a period of time when he began smoking on a daily basis, that's when he began -- when he escalated to smoking up to about ten cigarettes per day. And a vast majority of people who smoke ten cigarettes every day are addicted. They have difficulty quitting.

Q The fact that he is still smoking cigarettes after lung cancer, brain cancer, is that any indication to you of whether this man is addicted to cigarettes?

A Yes. Absolutely. One of the things you counsel a patient with cancer is that the chances of recurrence are higher if you smoke. You got -- it's just like having a heart

attack. You got to stop smoking. And someone who continues to smoke who is not, frankly, suicidal means that he really has -- just does not have control over that drug use. He continues to use something that he knows is doing very serious harm to himself, and that's drug addiction.

Q In your research and your work have you had occasion to review documents from tobacco companies regarding the subject of nicotine and addiction?

A Yes.

Q Okay. I'd like to show you one of the those documents at this point.

MR. GROSSMAN: Would you show it to us first?

MR. PAUL: Sure. It's Exhibit Number 1.
MS. KESSLER: One?
MR. PAUL: One.
May I place this in front of the witness, your Honor?
THE COURT: Yes.
MR. PAUL: Marked as Exhibit Number 1.
Q (By MR. PAUL) Have you had occasion to review this document, sir?
A Yes, I have.
Q On a number of occasions?
A Yes.
Q All right.
MR. PAUL: Your Honor, I'd move in this document.
MR. BARRON: Your Honor, we have no objection to Exhibit 1.
THE COURT: Okay. Exhibit 1 is received. One is

received.
(Plaintiffs' Exhibit 1 was received into evidence.)
Q (By MR. PAUL) This document is entitled -- may I have the -- thank you -- Motives and Incentives in Cigarette Smoking William L. Dunn. Philip Morris Research Center. Richmond Virginia.
A Yes.
Q Okay. What I'd like to do is turn your attention if I could to page two of that document.
Are you familiar with this page, sir?
A Yes.
Q And in this article it talks about -- I'm pointing our attention to where it starts, "You've heard many explanations for cigarette smoking."
A Yes.
Q All right. You've reviewed those reasons?
A Yes.
Q As a scientist, what is your view on those reasons?
A Well, these are various aspects of why people smoke cigarettes. And some of them are some of the things that occur in the beginning, like social acceptance, smoking with your peers. Some of things are things that are associated with handling a cigarette, oral gratification, psychomotor habit.
And then the last one is the one that we've been talking about which is the pharmacological effect of smoke constituents, which means you're smoking to get some effect on your body of some component of the tobacco smoke.
Q I just realized I'm standing in front of people. I'm not

sure where to go not to stand in front of you. So maybe I'll move over here, if that's okay.
So from a scientific -- based on your background, training and experience and looking at this as a scientist, you would agree with the reasons that are put up there?
MR. PAUL: And by the way, your Honor, this is a 1972 document.
Q (By MR. PAUL) You would agree with those reasons?
A Yes.
Q Okay. I'd like you to look at --
MR. GROSSMAN: Well, your Honor, with regard to that, could we have a limiting instruction this is a post-1966 PM document?
THE COURT: Approach the bench, please.
(The following bench conference was then had.)

THE COURT: What limiting instruction are you seeking?
MR. GROSSMAN: That this document is admitted only as against Philip Morris.
THE COURT: Okay.
MR. GROSSMAN: Yeah.
MR. PAUL: I'll make that point. I should have done that. I apologize for not having done that. I'll make that point, that it's a Philip Morris document.
THE COURT: Is that sufficient for your purposes?
MR. GROSSMAN: I would like the jury to be instructed that it is admitted only against Philip Morris. It's not an R.J. Reynolds document and not offered --
MR. BARRON: I don't mind to do it once, but to do it all

the time it gets to begin -- then they begin to wonder about how it's going play out.
MR. PAUL: See, I think it might be better if I say this is --
MR. GROSSMAN: Why don't we do it this way the first time and after that with regard to both PM documents and Reynolds documents -- we don't have to do it every time -- the jury can be instructed that the documents of one are not admitted as to the other.
THE COURT: Is that okay?
MR. PAUL: That's fine with me.
(Bench conference concluded.)
THE COURT: Okay. This document is admitted only as to the defendant Philip Morris and not as to R.J. Reynolds. The jury can consider it only as it relates to the defendant to whom it's admitted.
MR. PAUL: Thank you, your Honor.
Q (By MR. PAUL) Dr. Benowitz, you understood this to be a Philip Morris document, correct?
A Yes.
Q Okay. I want you to look at page four that I've put up, the highlighted area. And it says, "Without nicotine, the argument goes, there would be no smoking. Some strong evidence can be marshalled to support this argument," and then there are a number of things that are listed down there.
First, based on your background, training and experience, this 1972 document, do you agree with what Philip Morris was saying?

A Uh, yes. This is what I've said previously, that people do not smoke cigarettes without nicotine. And most of the effects, the psychological effects and the physiological effects, of smoking have been shown to be related to nicotine.
And when there are cigarettes that are really low in nicotine, and there are only a few that are in this category, there's not much market demand for them. People don't buy cigarettes that don't give them enough nicotine. So this is very much consistent with the science of nicotine addiction.
Q All right. I want to turn our attention sort of to that third paragraph where it does talk about the fact that there are some low nicotine brand entries into the market.
Bless you.
And what it says further down is, "94 percent of the cigarettes sold in the United States deliver more than one milligram of nicotine. 98.5 percent deliver more than .9 milligrams."
First, what is a milligram?

A A milligram is one-thousandths of a gram.
Q Has any research or study been done as to a cigarette that -- what one might call -- what would be the range of nicotine that would stop the potential addicting effect versus what sort of is the border if you go over this line that it becomes addicting?
A Um, yes. There's been work that I've done trying to understand this kind of threshold. It's not -- we're still working on it, but it's probably in the range of .05 milligrams is what it would take for a cigarette to be non-addicting.

Q All right. And if we went to .05 milligrams, the impact here would be that -- if we would look at this, what they're saying here is that those cigarettes probably would not be bought.
A Right.
Q Okay. So the threshold here is to be non-addicting they have to drop the levels even lower than what they're talking about here?
A Let me take that back. It's not .05. It would actually be .4 to .5.
Q Okay.
A Of a true nicotine delivery.
Q All right. So somewhat less than the number they're talking about, the .9, correct? Or am I wrong?
A It's complicated. What I was talking about by .4 to .5 is actually the amount of nicotine in the tobacco in the cigarette.
Q Okay.
A It's complicated because these yields from the machines don't correspond to what a smoker takes in. A smoker can basically take in about a milligram of nicotine no matter what commercial cigarettes they smoke.
What I've been proposing is different kind of cigarettes. I'm proposing cigarettes that are not commercially available, where there is actually less nicotine content than these cigarettes. And so if the content is down to point .4 or .5, the actual delivery would be about .1 to .2 and that would be a level which would be hard to sustain addiction.

Q Okay. Thank you.
All right. I'd like you next to look at page five where it talks about, Cigarettes should be conceived not as a product but as a package, etcetera.
What are your views as a scientists on those comments?
A Well, this is what I was trying to explain before about the concept that a cigarette is really an effective drug delivery device. It delivers nicotine in a way that is easily controlled; that the person can control the does; that each puff is really another dose of the drug; and that a cigarette package is really a convenient storage container for the doses of nicotine that a person would use throughout the day.
This is saying back in 1972 what I learned as a scientist about 15 years later.
Q All right. So in other words, what Philip Morris was saying in '72 you know to be true?
A Yes.
Q It's a dose delivery device?
A Yes.
Q Okay. Now, if I ask you to look at page six of the document, it says, "Think of a puff of smoke as the vehicle of

nicotine. A convenient 35 cc mouthful contains approximately the right amount of nicotine."

Is that what you were sort of describing to us earlier?

A Yes. Again, it comes back to the concept when you take a puff of smoke you're really taking a dose of nicotine that your body wants to take in and absorb.

And as it says here, it gets very quickly transferred to

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the bloodstream and very quickly transferred to the brain.

Q Okay. And the thing that you talked about, titration, or calibration is sort of mentioned in that second paragraph as well?

A Yes.

Q Okay. I want you to look down a little bit further on this article. It said, Let me hasten to point out there are many other vehicles of sought-after agents which dispense in dose units; wine, tea and coffee.

You see those?

A Yes.

Q Do you agree with those opinions?

A Uh, well, yes and no. They -- they certainly -- those are certainly vehicles for drugs. When we're talking about an alcoholic drink, it's got alcohol in it. Tea and coffee have got caffeine in them. People don't always use them that way though. Especially tea and coffee drinkers. Alcohol maybe. But tea and coffee drinkers often are drinking much more in a ritual way than drinking for a drug effect, using it as a drug-dispensing system.

Q Okay. Let me ask you a little bit -- well, hang on for one second.

Maybe we can turn -- maybe I can ask it in a different fashion from another exhibit. I'm going to ask you to look at Exhibit Number 17 which I think there was a question.

MR. BARRON: I thought you were not going to use the ones that had questions.

MR. PAUL: No, I said I would raise it if you did have

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one.

MR. BARRON: We've alerted counsel to the issue, your Honor.

MR. PAUL: Perhaps we could approach for just a moment, your Honor.

THE COURT: All right.

(The following bench conference was then had.)

MR. PAUL: This is the exhibit. This is the one that's been up in front of the jury already. The proposal.

MR. BARRON: Well, this is the one on which we made an objection on Noerr-Pennington and Civil Code Section 47. You overruled it for purposes of the opening statement. You --

THE COURT: I want to take a look at this without just reading it. I want to look at this more carefully rather than just ruling on it in this fashion. We've got ten minutes left.

MR. PAUL: Do you want me to move on to a different --

THE COURT: Let's go on to a different subject. That's the only object objection? I want to take a close look at that.

MR. BARRON: Thank you, your Honor.

MR. PAUL: All right.

(Bench conference concluded.)

(An unreported discussion was then had between counsel.)

MR. PAUL: We're sort of -- a little coordination here.

THE COURT: All right.
MR. PAUL: No problem? Okay.
Q (By MR. PAUL) Let me turn our attention then to Exhibit 389. Okay? And I'll put the document in front of you,

sir.
This is a Philip Morris document. I'll ask to you look at that. Tell me if you -- have you seen that document before?
A Yes.
MR. BARRON: Well, your Honor -- I'm sorry. There is just a clerical error.
This -- Gary, can you see for a sec? Sorry.
(Pause.)
MR. PAUL: I'm sorry, your Honor. I didn't think there was a problem on that document. Let me try to move to something else.
(Pause.)
MR. BARRON: I thought you were on 42. We have no problem with it.
MR. PAUL: No, not there yet.
MR. BARRON: Sorry.
MR. PAUL: How about 405?
THE COURT: Will you approach the bench, please.
MR. PAUL: Sure, your Honor.
(The following bench conference was then had.)
THE COURT: Unless -- this is too awkward. We've got five minutes left, it's late, it's Friday afternoon. And I know there is a desire to get as much on as possible, but I think we should just break.
MR. PAUL: All right, your Honor. I'm not sure -- we can break, but at some point we've got to discuss how to deal with these documents. Because if everyone is going to be objecting it's going to take us forever to get through this.

THE COURT: We have to set up some way of doing this.
MR. GROSSMAN: We all agree.
MR. PAUL: That's going to happen with every witness.
MR. GROSSMAN: I would just note, it appears that the witness isn't even close to done, and we were -- it was represented that we would probably begin cross today. Now, I know we started late, and I don't know how long the direct is. My only concern is if he's coming back next Thursday we have fully adequate time to conduct a cross by both parties.
MR. PAUL: You know, I wanted to get started. I had him here at 9:00 a.m. this morning.
THE COURT: Let's do our best.
MR. GROSSMAN: Right.
THE COURT: That's all we can do.
(Bench conference concluded.)
THE COURT: Okay. We're going to take the evening recess, the weekend recess. Before you leave -- don't get up yet, please. Remember not to discuss the case. Do not permit to anyone to talk to you about the case. Avoid anything you may have any contact with that has anything to do in any way with the subject matter of this case.
And we very much appreciate your involvement and your being here and your participation. That's greatly appreciated.
Let me just indicate that I'm going to instruct you at the conclusion of the case about a lot of things, including objections. And you're not to -- you're not to draw any

inferences because someone has made an objection or the

reason. That's something that should not concern you whatsoever. You shouldn't speculate about it.

So have a nice weekend. Monday is a Court holiday. We'll resume Tuesday at 9:00 o'clock in the morning. Tuesday at 9:00. Have a nice weekend.

(The following proceedings were then had in open court outside the presence of the jury.)

THE COURT: Okay. Anything else?

The jury is gone now.

MR. PAUL: Your Honor, I don't know what to suggest on this. What happens is we exchanged exhibit lists --

THE COURT: Right.

MR. PAUL: -- that we were going to use with a given witness. I got their objections I guess about -- Mr. Barron was kind enough to call me at 10:30 last night with his objections. I understand we're all working hard and trying to get this done.

The problem is that I'm not sure how to go through this process because I think -- I'm going to obviously have a list of documents for most of -- most of these witnesses. And, you know, when -- I only had about 12 documents to go through, but when seven or eight of them are objected to on the basis of preemption or Noerr-Pennington or all these -- I mean it's going to break down the discussion with every witness. I -- some of these documents have been shown to the jury --

THE COURT: Okay.

MR. PAUL: -- and there were objections to them. So --

THE COURT: Right.

MR. PAUL: -- I don't know how to deal with it.

THE COURT: I think that you should do your -- I know everyone is working hard. I recognize this is a very demanding process for everybody involved. Do your best to share the documents you're going to use for experts in advance of that expert's testimony. And I'll try to set aside some time before the witness actually gets here so that we can kind of preview and make determinations on those in advance, rather than wasting the expert's time and the expense that's associated with that. So I'll set aside some time. I'll try to do that.

MR. PAUL: I wish I had mentioned that earlier because we're going to have another expert on on Monday. They've already gotten the exhibit --

MR. GROSSMAN: Tuesday.

MR. PAUL: On Tuesday. Excuse me. Tuesday.

MR. GROSSMAN: We won't be here Monday.

MR. PAUL: Tuesday. I know.

I've given them the exhibits.

THE COURT: Are there a lot of exhibits?

MR. PAUL: Well, there are but I -- normally what it does -- I have to give them an omnibus of exhibits, you know, we need to cover. Like this case, I gave them about 40 or maybe even 50, and it ends up we're going to use ten of them.

THE COURT: So come in at 8:30 on Tuesday and --

MR. PAUL: Oh, okay.

MR. BARRON: Your Honor --

MR. PAUL: That's a great idea. Certainly. 8:30 is fine.

THE COURT: All right?
MR. GROSSMAN: That's fine, your Honor.
MR. PAUL: That's fine, your Honor.
MR. BARRON: That's fine, your Honor. We'll try to solve this.
I do think -- I would just like to mention something, because we did work very hard. I myself worked until about ten to 10:00 last night when I should be doing opening statements and worrying about the witness to come.
I would just like to indicate so the Court knows, these things are typically a problem. We will work very hard to not impose upon the Court and the jury's time.
It is for that reason back in August -- and I have a copy of a letter -- that we proposed a system for mutual exchange of information on exhibits and a meet-and-confer process. We never got it accomplished. I'm not faulting counsel. A lot of things happened. It wasn't actually the letter to this particular counsel. We reiterated that effort in September.
We also asked the Court here to provide us a special assigned judge before trial so we could work on these things because we knew they'd be a problem along with motions in limine.
And just the last thing I'd like to say, and I'm sure you'll appreciate it, I have been told we have been given a list of approximately 700 documents.
MR. PAUL: 700?
MR. BARRON: Total. Not for today.
MR. PAUL: Oh, total. Plaintiffs' exhibits.

MR. BARRON: Total. And they're never the same 700, they're never the same 2000 in other cases, although there are some similarities. And it is quite a difficult task, and we need to be -- for our client, we're asked to be very careful as lawyers not to waive some important privileges like the Noerr-Pennington Doctrine that I raised.
We'll work very hard, I want you to know. We're not in any way trying to make it difficult for counsel. It's just an ominous task. We had teams of people working on it last night.
THE COURT: I have a sense for that. I appreciate that. We'll do the best we can.
MR. PAUL: Let me just say, I agreed with -- actually, I agreed with their concept of trying to have a judge sometime -- we joined in their motion. We had someone set up to assist in this process, and I'm not blaming anybody or --
THE COURT: You're not?
MR. PAUL: It would have made things --
THE COURT: That's not the message I'm getting. Okay.
MR. PAUL: I'm not blaming anybody. I want that clear on the record.
THE COURT: All right. We'll see you on Tuesday morning.
COUNSEL IN UNISON: Have a good weekend.
(Evening recess.)
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